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MEDICAL SECTARIANISM vs. MEDICAL PROGRESS.

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MOBILITY favors progress, fixity extinguishes it. This is equally true of mental and physical states. A piece of living protoplasm reflecting in successive and simultaneous thrills every alteration of its immediate environment, typifies the condition of a progressive mind. A crystal of quartz in its cold, unresponsive, adamantine stability is a perfect physical image of a mind hemmed in by a medical creed. Theories are, in their places, useful things but, when a man's mental powers are trammelled by one to such an extent that he will not welcome facts that controvert it, his growth has ended and his sessile intellect has made its last step. Thenceforward every change is viewed with repugnance and every higher adjustment is considered heresy fit only to be condemned. Strange to say, however, people who have become thus trammelled still imagine themselves heralds of progress and guides along the route of development. Fortunately we have a pretty accurate index to tell just where progress is going on and where it is arrested. A condition of ever multiplying diversity is "pathognomonic" of the former while one of increasing uniformity betrays the latter. The highest ideal of a sessile mind is a dead level of sameness. Such minds seek to pull down the high and pull up the low that all may be alike. Their world of thought would, if they had their way, have neither mountain nor valley, but all be one endless plain without flowers or forests or features of diversity of any kind. Every fanatic and crank, in all departments of life, commits this very blunder. They fail to see that the very essence of progress lies in diversity.

Everywhere and in everything upward growth is away from uniformity. Nature advances by incessant variation and multiplied powers of adjustment. Whenever and wherever progress stops uniformity begins, but never under any other circumstances. The presence of uniformity is, on its face, positive evidence of arrested development. The more truly uniform things are found the more thoroughly stand still they are. The history of civilization is an eloquent illustration of this very fact. Compare the contents of

the homes of the working people of the past with those of to-day, and what will be found? Then they were all about alike, to-day they all differ markedly from each other. Look next into the homes of the rich of the past and see the monotony as compared with the present diversity. Next go to the work-shops of mechanics and craftsmen of every kind, to the stores of merchants, to the factories of manufacturers, to the fields of farmers. Everywhere will be found a multiplication of tools, materials and methods, telling the one common story of ever multiplying diversity. Progress is not the rushing along a straight line so many people seem to consider it. Instead of this it incessantly proves itself to be a branching out in every direction. What is true of the home, the workshop, the factory and the field, is equally true of the doctor's office and the doctor's methods. Find a sessile people, class, or community, and you will find a sessile set of medical men among them. Here you will never fail to discover medical uniformity or a very near approach thereto. Ask a hundred medical men among the Indians to treat a case of measles. Every man of them will go through the same incantations and provide the same remedies. Take any body of medical fanatics and the method of one is the method of all. The faith-cure cranks never disagree among themselves as to what should be done to cure the sick. Their minds are run in a common mould, and are as unchangeable as a piece of steel. A thousand ignoramuses taught to believe that a dried potato worn about the person can cure rheumatism, will each prescribe that treatment and no other to every sufferer from that malady that crosses their paths. Let any other piece of ridiculous nonsense be taught to non-progressive men concerning the cure of any disease and perfect agreement must necessarily result. Wherever such agreement appears, there we have positive evidence of mental bondage. The uniformity is itself the proof of their static condition. Nature is never so parsimonious in her gifts as to limit us to single samples.

If a group of physicians prescribe the same remedy for the same ailment, it is evidence of narrowness of knowledge. As soon as growth sets in, differences must occur, and the more rapid the growth the more pronounced the differences. Nor is this rule confined to any stage of progress. It applies equally to all. When, as at the beginning, there is but sheer guess-work, innumerable remedies will be tried and the successful selected.

At the advent of new and undescribed diseases this holds good. On reaching the point where only palliation is possible, many drugs capable of preventing and easing painful, annoying and dangerous symptoms soon appear in rapid succession. When the highest stage is reached and we are able to abort a heretofore long continuing malady, only by an arrest of development are we confined long to a single remedy. Before the scientific spirit of research was invoked, orthodox physicians to a man would blister, bleed, or give mercury to salivation in perfect uniformity, one with the other for the same ailments. There was then little or no mental freedom and no effort at research. All that is now past. The yoke of bondage has been cast aside and perfect mental freedom attained by a majority. Write, now, to ten or more reputable physicians, describing the symptoms of some disease, and asking them to prescribe. The chances are that they will all order different remedies. Not many years ago, had any one tested the skill of a dozen of them with a case of scabies, they would all have ordered sulphur ointment. We have now many far better preparations for the destruction of the acari, so that possibly not a man in a dozen would order the old remedy, and no two of them prescribe the same thing. To men who long for the return of the good (?) old times, this diversity is deplorable. They think that we should all seek to reach a unity of faith and discover the one—only one—specific for each set of symptoms.

Not long ago, and one or two badly smelling preparations constituted our total supply of available disinfectants and antiseptics. Now we can count our germicides by the gross, and many of them are odorless or sweet smelling. We have antipyretics by the dozen, hypnotics by the score, and cathartics by the hundred. If an anesthetic is required, it is no longer necessary to confine ourselves to ether, and if an anthelmintic is sought, we are not bound solely to chenopodium.

The surgeon has his choice from among dozens of devices for one common purpose, and the gynecologist is almost buried in a sea of instruments with a common use. Even the material available for the manufacture of such instruments is multiple in kinds. If we scan the methods and purposes of freemen in the medical profession, we will discover that the same diversity exists in their minds as in the environment without. Just as twenty inventors, if asked to devise an instrument for a given use, will all seek it in a different way and yet successfully accomplish the task set before them, even so twenty medical men will bring relief to the same patient by totally different and sometimes opposite processes. As there are numerous ways to kill, maim, or injure, so there are many ways to cure. Ignorance or prejudice may doubt or deny this, but it remains a fact just the same. To every city hundreds of roads lead,

and to follow any one of them is to reach the destination desired. It is seldom if ever possible, in this complex world of ours, to pursue a direct path to the goal we seek. Every movement must conform to a more or less zigzag rhythm. Homœopathy and allopathy as rules of cure are the opposite roads leading into a common city, while all around the circumference are numerous other roads of equal value as thoroughfares. Physicians now have their choice among large numbers of valuable remedies, instruments and methods, while successive steps of progress still keep adding more. Only when chained and collared, as the born thralls of some medical "Cedric the Saxon," do we find them prescribing the same remedy for the same group of symptoms. The dominant body of medical practitioners claim now to be composed of freemen owing no allegiance to any prophet. The only authority to which they appeal is nature. The one rule to which all must subscribe to be one of them consists in refusing to wear the collar of Galen, Paracelsus, Hahnemann or any one else. The word regular is from *regula*, a rule, and every educated gentleman, abreast of the leading medical facts known to our times, who subscribes to this rule, is regular, while whoever fails to do so is irregular. We have not far to hunt if we would discover wherein lies the sin of such serfdom as constitutes irregularity. It is a very ancient crime and has kept the world in darkness and misery for ages. It is, in fact, an overweening confidence in ourselves and our mental powers. It is the worst type of self-pride. All exclusive systems relinquish the process of scientific induction and adopt in its stead mediæval, exclusive deduction. Without proper checks, corrections and restraints, they allow their minds to reason out in advance what they confidently believe to be nature's methods. They do not deem it necessary to test every such conclusion before its adoption. Revelling in an almost pure *a priori* system, they coolly pronounce it scientific. They throw away the logical processes that have given us our civilization and adopt those of the schoolmen of the dark ages. Of course, the *a posteriori* method is slow, tedious and galling to human ambition and human pride. Like gravity, it holds us to solid earth and refuses to countenance our journeys through space to the moon and stars. It has, however, given us all we to-day deem of great value. To reason out results in the unknown, after mastering a large mass of data that is known is quite legitimate, but to depend upon such reasoned results before testing them by the touchstone of experience is illegitimate. Deductive logic, as pursued by the irregular practitioners of to-day, is exactly the same as that that gave the world metaphysics, astrology and alchemy. Inductive logic, as pursued by the regular practitioners now, is precisely identical with that that has given us astronomy,

chemistry and physics. No astronomer could be expected to hold close fellowship with an astrologer as such because of the irregular, uncountenanced methods of his reasoning. In the same way no scientific physician could associate on common grounds with one enthralled by a creed. They live in different mental worlds and breathe a different atmosphere. They are separated by a much wider and deeper hiatus than is generally believed to lie between them. To establish a habit of prejudging all matters by a formula, is to keep ourselves constantly in ignorance concerning the very subjects we deem ourselves supremely knowing upon. We at once multiply the illusions of the personal equation to an uncontrollable extent. Take, for instance, a devout disciple of Hahnemann, who makes provings and discovers a group of symptoms associated with a certain drug. To believe that that drug will cure those symptoms in the sick, is to render himself incapable of telling whether it does so or not when put to the test. Astronomers, who expect to see certain stars at certain places where they have predicted their appearance, are often deceived by phantom figures of their own imagination. People, who believe that ghosts inhabit graveyards, are almost certain to torture every flutter of a leaf, every shadow and every stray beam into a ghost. In the treatment of the sick, so numerous are the elements to be considered, and so impossible in the majority of instances is it for us to tell whether a remedy did well or ill by the patient, that the conclusions reached by a biased mind become totally worthless for science. This is the positive danger of the *a priori* method. The negative, however, is far worse. For us to say or imply, directly or indirectly, that because drugs do cure by the principle of similars, that therefore such drugs as do not manifest themselves by symptoms that mimic disease are useless as remedies, is to treat nature with a very high hand. It is in fact to assume ourselves as possessing the omniscience of the Almighty. To concede the truth of the doctrine of similars is one thing, and to assert that there can be no cures not in accordance therewith is quite another. And yet exclusive homœopaths seem to us outsiders as incessantly confounding the two. Either this, or they believe they can have a science of medicine in which the great bulk of the facts of medicine is rejected. Again, of the very drugs themselves which obey the principle of similars, careful research might show that they could be successfully used for curing diseases to which they bear no such relation. To discover these other diseases and the processes by which they cure, is the legitimate function of a true science of medicine. In fact, it will never be possible to discover why *similia similibus curantur* is true until all such facts are allowed a hearing. The universal continuity of physical phenomena discovered every place else

is very likely true here as well, and, until all connections are traced, the causes must remain hidden. The exceptions are, therefore, of much more importance to science than the rule, and he who reveals such, when found, is a public benefactor. The multiplication of such exceptions will be but following in the path of progress by giving us greater diversity where some of us at least supposed there was only uniformity. By and by we will thus come to see the true course of medical evolution and refrain from boasting of that which is the very signature of the bill of sale that proved us chattel slaves.

SOME CLINICAL JOTTINGS ON OUR SOUTHERN FEVERS AND THEIR TREATMENT.

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PART II.

IN Volume IV. of the "Transactions of the Ninth International Medical Congress," there is a paper by Dr. Blair D. Taylor, on the "Clinical History and Treatment of Malarial Continued Fever, especially as observed in Texas, and its Differentiation from Enteric Fever," in which he makes a vigorous protest against the use of quinine in these continued fevers.

Bartholow who recognizes the misnomer "*Typho Malarial*" and protests against its use, employs the term "*malarial typhoid*," which is no better. He admits the powerlessness of quinine in arresting it, but adds: "There comes a period, however, when the use of quinine is indispensable. It is when, after the exhaustion of the typhoid process, the malarial element initiates a characteristic disturbance on its own account. Then by its timely exhibition, a convalescence that might have been protracted and unsatisfactory is rendered shorter and milder." I must say that I have never seen a malarial typhoid as he describes it and understands the term. I believe that this fever is neither malarial nor typhoid but something else, and that quinine is quite useless used specifically in any stage of the disease.

As I said before, our inability to tell the malarial or non-malarial character of the fever in its beginning, compels us to give the patient the benefit of the doubt and try quinine, but I can say that I know of no case of "continued fever" where, if two or three trials failed to benefit, its continued use in any quantity did not only render the patient more or less uncomfortable, but was absolutely useless.

Fortunately, it is not often that any serious harm comes from over-dosing with this drug. Some patients will say "I can not take quinine, do not give it to me," and a history will be given of nettle-rash, or deafness, or blindness, which rapidly disappeared. And in these cases one can

succeed with some substitutes which, if they do not cure quite so quickly, do their work at any rate with less discomfort, and in the end quite as satisfactorily. It is well for us to disabuse our minds at times of the idea that a certain disease can only be cured by a certain remedy, and realize that if we can not cure our patient in the most direct way, there are other routes not far out of the way. And nowhere does this hold better than in malarial fevers where good results have come from the most varied treatment. It is an age for quinine, and I doubt not we give too much rather than too little.

It should be given in the intermission when possible, and to anticipate the oncoming chill. In the remittent form the remission is the proper time, and this is more apt to occur between midnight and six A. M. In the large majority of cases we can choose the time of its administration, it is only in the congestive type, the *foudroyant* cases, that we have no time, and here massive doses are necessary both to antagonize the poison and to overcome the sluggish response from paralyzed nerve centres.

In ordinary cases with adults more than fifteen grains is not often required. I have no experience except with the sulphate and bisulphate, and while I can admire Dujardin-Beaumetz's most exhaustive exposition of the relative merits of the various alkaloids of cinchona and their salts, he himself comes down to the sulphate and bisulphate as most in use in France. The chlorhydrate is largely used in England and Germany, as more soluble than the sulphate and containing a larger percentage of quinine. I have never used it; its solubility is met by the bisulphate and its larger percentage of quinine, but requires a larger dose of the sulphate.

The efficacy of quinine is increased, according to my experience, by the addition of an acid, preferably nitric acid. It has been recommended by Farquharson in his "Guide to Therapeutics," and it has been used and recommended by Dr. Wm. A. Hammond. The nitric acid meets the gastro-intestinal symptoms frequently present, it acts on the liver, and satisfies the craving of the system for some acid. It may be necessary to differentiate here between the muriatic acid and sulphuric acid, typhoid symptoms indicating the former, and the haemorrhagic tendency the latter.

Excellent results may be had from the decoction of fresh lemons in malarial fevers, and especially in the malarial cachexia. I order the whole lemon sliced into thin slices in a pint of water, simmered down to a half pint, strained, and drank cold every morning before breakfast. Its good effects are unquestionable.

Arsenic is universally recognized as a potent anti-malarial, some ranking it above quinine. In the malarial cachexia it is indispensable. In

the continued fevers it meets the gastro-intestinal symptoms frequently present, cleaning the tongue, and relieving vomiting and a watery diarrhoea. It cures frequently the periodical neuralgias. In the chronic forms of malarial poisoning it meets the anaemia better than iron, as pointed out by Ringer. I have never seen any bad results from its use, but it is evidently a drug not without danger if improperly used. It is a valuable climatic remedy, meeting many conditions which seem to be directly or indirectly associated with our climate and soil.

In strychnia we have another drug which I regard as a potent anti-malarial, and which, I think, deserves a better recognition and a more extensive use. I use it largely in the continued fevers, and in the malarial cachexia in conjunction with other drugs. It relieves various troubles of the stomach and bowels, especially a muscular atony. In the continued fevers, and in the malarial cachexia, there is an evident lack of reaction from the nerve centres; there is a poor response from drugs; the symptoms indicate torpor, and strychnia comes in as an exciter of the nerve-centres of the cord. It "increases the irritability of the automatic functions of the central nervous system, and sets them in a state of increased activity."* It prepares the way for other drugs. In the continued fevers I frequently give a drachm of the tincture of nux vomica daily in divided doses in alternation with some other drug. In the malarial cachexia I give it in conjunction with quinine, iron and arsenic, and I have great confidence in it. Here is the formula:

B. Quiniae sulphatis.....	3 j.
Ferri redacti.....	3 ij.
Acidi arseniosi.....	gr. ij.
Strychniae sulphatis.....	gr. j.
M. ft. pil. seu capsulae.....	No. xxx.
Sig. One t. i. d. after meals.	

This is a shot-gun prescription evidently, but its value is undoubted, and it is universally used by physicians throughout the South. Of course the quantity of the different ingredients may be changed to suit the case; I frequently omit the iron, only giving it when there is evident anaemia.

Some add a small amount of aloes; this may be a useful addition, but I always prefer to look to the constipation separately.

And a word about the use of calomel without which many think it is impossible to live, without which life loses its charm and is reduced to the existence of a torpid liver merely, the rest of the body having sunk into abeyance to this poor organ. The use of calomel seems to be directly proportional to the square of the distance from civilized centres. In certain sections of our country it is probably given more than any other

* "Elements of Pharmacology." By Dr. Oswald Schmiedeberg : 1887, p. 15.

drug. There is a certain class of physicians who spend the long intervals between visits in whittling and chewing tobacco, and who, in ninety-nine cases out of a hundred, begin treatment with a large dose of calomel and soda, the dose to be repeated should the patient return not improved. Those who use this drug in this routine fashion have very crude therapeutic notions at the best, and their *materia medica* is summed up by "an opener," "a shutter," "a heater," and "a cooler." They look upon calomel as the one remedy for a torpid liver, and to be sick means to be bilious. Biliousness calls up no distinct clinical picture or pathological condition, and is verily a *lucus e non lucendo*.

Strange to say, so far as experimentation has gone, calomel has not been found to increase the flow of bile, certainly not in the large doses usually employed. The experiments of Bennett and the Edinburgh Commission several years ago, and recently the elaborate experiments of Prof. Prevost and Dr. Binet, would indicate that calomel decreased rather than increased the flow of bile. Prevost and Binet place calomel among the substances which decrease the secretion of bile, and state that calomel, in the absence of bile, colors the stools green! While of course therapeutics is not on a firm physiological basis, and all these experiments must be received with caution, certain it is that the massive doses of calomel, and, in fact, of all mercurial preparations, are being more and more discountenanced by the better class of physicians and replaced by much smaller doses.

Years ago three distinguished clinical teachers, Dr. Austin Flint, Dr. Meigs, and Dr. Morehead, protested against this use of calomel, but the protest long remained unheeded. I never give calomel to produce catharsis, but I am called in frequently after the drug has already been taken for that purpose, and I not infrequently see cases of salivation and disordered stomach from these over-doses. Some physicians seem to look upon salivation as a trivial affair, to me it is quite a serious one, and a brisk salivation will leave its mark upon the teeth and gums. And, further, I do not see its benefits. Calomel given in large doses has a merely local effect, a relief from constipation which can be accomplished better, to my mind, and with no bad after effects, by other drugs. Certainly you do not get its alterative and specific effects in that way. As the use of immense doses of mercury in syphilis has opened the eyes of many to the evils of mercurialization, so the beneficial effects of small doses long continued in this disease have shown the benefits of mercury in many other affections when so given. Let every physician read Ringer's chapter on mercury before purging his patient with calomel, and he may stop and think and mend his ways.

It is surprising how quickly you see results

from calomel given in small doses triturated with sugar of milk. You get all of the deep action of the drug without any of its evil effects. It is this use of calomel which has shown us its diuretic effects in cardiac dropsy, and I can testify to its value here. From similar small doses of hydrargyrum cum creta, or better still, the soluble mercury of Hahnemann triturated with sugar of milk, you can obtain all the good results possible from mercury.

However detrimental supercatharsis may be, it still behoves the physician to see that his patient suffers nothing from the mechanical or fecal-infection dangers of constipation. We have too many simple remedies to choose from to permit any trouble in this direction. In most of our fevers the various saline preparations may be relied upon, preferably the natural aperient waters, such as the Friedrichshall Bitter water, the Hunjadi Janos, or the Saratoga waters. The secret of successful medication in this direction is simply this: If you wish to relieve constipation do it in the simplest way possible. For this you need no deep-acting drug; you need a remedy which goes no further than the bowel. If you wish to go further back in your differentiation, or relieve a condition of which the constipation is but a symptom, use your deep-acting drug, but not in poisonous doses.

In many, I may say the most, cases of continued fever which we are called upon to treat, specific medication must be given up to a purely symptomatic one. We have no specific treatment outside of quinine, and quinine does not avail us here.* Even typhoid fever, which has yielded up its bacillus, and whose pathology and local lesions are fairly well known, still awaits its specific. Yet, granting that our treatment is symptomatic, modern medicine can boast of a great advance ever since Graves uttered his famous dictum.

I know of nothing on this subject so comprehensive and so concise, and which has weighed so carefully our knowledge on the nature and treatment of fever, than an address delivered by Prof. Austin Flint, before the Ninth International Medical Congress, entitled: "Fever: Its Cause, Mechanism and Rational Treatment." His conclusions in brief are these:

1. Fevers are self-limited and of germ origin.
2. While we can not destroy these germs which give rise to the continued fevers, we can moderate their action and sustain the patient's power of resistance.
3. Animal heat involves oxidation of parts of the body, or of articles of food, represented by the discharge of nitrogenized excrementitious matters, carbonic acid and water.

*I recently saw a case diagnosed as typho-malarial, and so treated, which proved to be a case of syphilitic fever, and which yielded rapidly to specific treatments.

4. Water formed in the body by oxidation is an excrementitious principle.

5. Fever is a condition of excessive production of heat, involving defective nutrition or inanition, an excessive production and discharge of nitrogenized excrementitious matters and carbonic acid, with waste and degeneration of tissues, and partial or complete suppression of the production and discharge of water.

6. The ataxic symptoms in fever are secondary to the fever and usually proportionate to the elevation of temperature. These symptoms are improved by a reduction of the general temperature of the body.

7. External cold and antipyretics internally, without affecting the special cause of the fever, improve the symptoms secondary to the pyrexia.

8. In health, during inanition, the tissues consumed in the production of animal heat are, in a measure, saved by an increased production and excretion of water.

9. In fever, the effects of inanition are intensified by a deficient formation and excretion of water.

10. Alimentation in fever to retard and repair destructive degeneration of the tissues is difficult from deranged digestive organs, and this must be met by articles of food easily digested, or partly or wholly predigested.

11. Of the hydrocarbons, important factors in the production of animal heat, alcohol presents a form which is promptly oxidized, and whose absorption requires no digestion.

12. Precisely, as oxidized in the body, alcohol furnishes matter consumed in the excess of heat, and thus saves the degeneration and destruction of tissue.

13. Matters thus consumed in the production of heat diminishes the intensity of the pyrexia.

14. As the oxidation of alcohol involves the formation of water, and limits the destruction of tissue, it tends to restore the normal processes of heat production, in which the formation of water plays an important part.

15. The great objects in the treatment of fever itself are: to limit and reduce the pyrexia by direct and indirect means; to limit and repair destruction and degeneration of tissues by alimentation; to provide matters for consumption in the abnormal production of heat, and thus to place the system in the most favorable condition for recuperation after the disease shall have run its course.

These conclusions of Prof. Flint, which I have taken the liberty to abridge from the original article in the Transactions of the Congress, represent in brief the latest results in the pathology and treatment of fever *per se*; they are the principles which should guide the physician to-day in the treatment of typhoid fever, the type of a con-

tinued fever; they are the principles which should guide us in the treatment of our Southern fevers when they assume a continued type and pass beyond the domain of specific treatment. The first thing we have to do is to give up the idea of breaking the fever, and let those interested give up the same idea; it will save a great deal of trouble on all sides.

The feeding of fever patients has been reduced to a science, and care and attention is here more than half the battle. The value of milk is conceded by all, and it can be so prepared as to meet almost any idiosyncrasy or condition of the stomach and upper bowel. Some patients will protest that they can not drink milk, "it makes them bilious," whatever that may mean. It will be found that they have not really made a proper effort to drink milk. Milk, diluted in various proportions with lime water or the various alkaline waters, or peptonized, or shaken up with crushed ice, or as a milk punch or toddy, can be made to meet almost any case. The exact rôle of beef tea and the animal broths, as peptogenous rather than nutritious, is now quite universally recognized, thanks principally to Fothergill's and Dujardin-Beaumetz's lucid expositions of the subject.

The preparations of beef-peptonoids and meat powders have been another great step in forced alimentation.

The use of alcohol as an easily oxidized hydrocarbon, supplying fuel to a flame which must burn a certain time, and thus saving the tissues of the body, has given me the most tangible evidence of its efficacy. I use it with little children, and babes even, and in doses which it would be impossible for them to take in health without some symptoms of intoxication—an evidence, to my mind, of the indication for the drug. In the case above mentioned, of a fever of five months' duration in an infant under a year old, alcohol in the shape of brandy was given throughout the illness, at intervals of every two or three hours, in 20-30 drop doses, and even one-half teaspoonful doses, without the least evidence of any alcoholic intoxication. Dr. Flint, in a paper published in 1879, and quoted in the address above mentioned, gives the following interesting calculations:

"According to Brande, cognac brandy contains 46 per cent. of absolute alcohol. With a specific gravity of 0.930, one ounce of brandy weighs 406.875 grains and contains 187.1625 grains of alcohol. The alcohol, with a composition of $C_2 H_6 O_2$, contains 12.9 per cent. of hydrogen, or 24.14 grains, and 56.65 per cent. of carbon, or 98.54 grains. The heat value of 24.14 grains of hydrogen equals 214.77 heat units. The heat value of 98.54 grains of carbon equals 182.54 heat units. Taking, then, the total heat value of the hydrogen and carbon contained in one ounce of brandy, and taking no account of the oxygen contained, the heat value amounts to 397.21 heat

units. If we assume that a man produces four heat units per pound weight of the body per hour, the amount of heat normally produced in twenty-four hours by a man weighing 140 pounds, is equal to 13,440 heat units. The quantity of brandy required to supply this amount of heat, according to the calculations I have just made, would be a little less than 34 ounces. Theoretically, then, it is easy to see how alcohol may furnish material to supply heat and save waste of tissue in fevers. It is not very unusual in certain stages of fever, to administer from 16 to 32 ounces of brandy in twenty-four hours."

In a case recently under my care of a gentleman who had fever lasting forty-nine days—typhoid in its character, and complicated with inflammatory rheumatism, the patient during three weeks of this fever received daily a pint of brandy and two quarts of milk diluted with vichy water. He had been a steady drinker for some time previously, though never to the extent given during his illness. There was marked delirium, dry tongue, and for several hours Cheyne-Stokes respiration, but no symptoms at any time referable to the alcohol. He made a good recovery and gave up the liquor *in toto* when thoroughly convalescent. I regarded the use of alcohol in this case as a most important factor in his recovery. In all our continued fevers I see this drug indicated, and I use it with confidence and success.

While alcohol is never indicated in perfect health, as a drug in disease it is a stimulant, an antipyretic, and an antidote to certain organic poisons; while as a hydrocarbon it is a food to be burnt up in the system without any previous digestion. The abuse of alcohol, like the abuse of any drug, is no argument against its proper use, and the question must not be viewed with the spirit of a Temperance Society.

Ever since the efforts of Liebermeister in Germany, and his classic work on typhoid fever, the beneficial effects of the "water cure" have been generally recognized, although its exact sphere and limitations, and the methods of its use are still unsettled. Certain it is, however, there has been a reaction in Germany following its first enthusiastic employment, especially since the introduction of a number of antipyretics which have come to be regarded as substitutes for the bath and the douche. From time immemorial hot pediluvia have been used in fevers and with excellent results. The cold douche and sponging are a later introduction, for it has taken many years to overcome a strongly rooted dread of using cold water internally and externally in fever, especially in the exanthemata. All physicians to-day use cold water, and by cold water I mean water below the temperature of the fever, if not after the technique of Liebermeister and his followers, at least by repeated spongings and cold compresses, and with results which leave no doubt of their efficacy.

In the first sudden outset of our acute fevers the derivative and antipyretic effects of hot pediluvia are very evident. They tend to equalize the circulation, quiet the nervous erythema, and very perceptibly reduce the temperature. When the fever continues high they may be repeated at intervals according to the height of the temperature. Even in the algid and pernicious fevers the cold bath and the cold douche have yielded the happiest results. The cold acts as a lash to a torpid and sinking nervous system. As Sternberg says: "It may seem a bold experiment to dash cold water over a patient, who is almost or entirely pulseless, whose extremities are cold to the touch, whose lips are livid or bloodless, and whose features are pinched and shrunken; but the experiment has been frequently made, with the most happy results." *

In the "Verhandlungen des Congresses für Innere Medicin. Fünften Congress, 1886," Dr. Winternitz, of Vienna, has contributed a most excellent paper on the rationale of the cold water treatment which deserves a wide circulation. He makes a distinction between the use of the antipyretics, so called, and the water treatment; the former he calls the antithermic treatment, and the latter the antifebrile. After pointing out some of the deleterious effects of antipyrine, kairin and thallin, he explains the benefits of the bath by the influence of cold on the vascular tonus as shown by the sphygmograph. During fevers there is a loss of tonicity of the blood vessels, a lowering of the tension and elasticity of the tissues, all of which conditions are overcome by the application of cold. His paper was evidently written to stem the rush for the pharmaceutical antipyretics at the expense of the water treatment, and is, to my mind, a very timely effort. The tendency now is to regard the mere fall in temperature as the one thing to be desired in the treatment of fever, when, in fact, there are other symptoms and pathological conditions demanding more attention.

The use of the antipyretics acetanilid, phenacetin and antipyrine is now very general, and their spheres and limitations will be in time fairly well mapped out. At present they are used in a haphazard way, and every now and then we meet with their deleterious effects. I published in the *Times* for January, 1889, an experience I had with antipyrine, where it produced a very ugly rash and symptoms of prostration. The use of these preparations in a high fever can be likened to the air-breaks on an express train, where there is simply a transference of the friction; the temperature is reduced, but at the expense of energy elsewhere. Antipyrine is evidently the most powerful of the three, and antifebrine comes second. Except, perhaps, in certain cases all the good effects in the mere reduction of the tem-

*Op. cit., p. 182.

perature are accomplished by the judicious use of pediluvia, the cold bath, or douche, or compress. To put a powder on the tongue and bring down the temperature two or three degrees demands much less trouble of the physician and nurse than the elaborate technique of the bath or douche, and it is not improbable that this may have its influence in this labor-saving age.

Dr. Reiss, of Berlin, has contributed a paper to the same *Verhandlungen*, in which he has estimated the excretion of nitrogen under the use of antipyrine and the cold baths. These experiments show a contrariety in the two methods of antipyresis. In general there resulted from an average of the fever days a diminution in the excretion of nitrogen from antipyrine, and an increase of the same from the bath treatments. These experiments have their value, but we are still in the dark as to the limitations of these preparations. I have found them valuable, aside from the reduction of the temperature, more as analgesics and anodynes. Their value here outweighs by far their antipyretic effects, though even here the system becomes quickly accustomed to the drug and fails to respond. The whole subject is still *sub judice*, and we err in our dependence upon them by catching at the shadow and being blind to the real thing. We do not look far enough back, we direct all our energies to the temperature, and lose sight of more important conditions of which the fever is but an epiphenomenon.

The physician who, in a case of continued fever, looks carefully to the hygiene of the sick room, to the nourishments and stimulation of his patient, and to a judicious use of the bath and sponging to reduce the temperature, will find a large part of his work done. He has taken a step forward in the treatment of his case when he realizes that any abortive or specific treatment must be given up, and that his drugs must be directed to symptoms or whatever complications may arise. He has the entire *materia medica* to choose from; he can relieve local inflammatory troubles in the chest and abdomen, control a troublesome cough or a weakening diarrhoea, support the stomach in its work of digestion, relieve a stomatitis which is a frequent source of annoyance, relieve the nervous system of the depressing effects of pain, give sleep and carry the patient through the long journey with the least possible friction. The fever will run its course and the patient will come out of it in a fair way to a rapid convalescence, and with less danger of a relapse.

The points which I have tried to make prominent in this paper, though in a desultory way, perhaps, may be summed up as follows:

1. The chaotic state of our nosology of the malarial and miasmatic fevers, a result of our ignorance of their etiology and pathology.
2. The marked distinction clinically and thera-

apeutically between the malarial fevers, strictly so-called, and other fevers of the remittent and continued type.

3. The need of a proper limitation in the use of the term, "malaria."

4. The evidently mixed character of many of our fevers where it is quite impossible to estimate the different factors in their etiology.

5. The rarity of genuine and uncomplicated typhoid fever in this part of the country.

6. The limitations in the use of quinine. While in many cases a specific in malarial fever and other malarial manifestations, its powerlessness when the malarial poison obtains such control as to induce a cachexia and where other drugs must come in.

7. The value of strychnia as only second to arsenic in the treatment of both the acute and chronic forms of malaria, as well as in the fevers of a continued type.

8. The discarding of quinine as an antipyretic in the continued fevers, and in those doubtful cases where a few trials of the drug prove ineffective.

9. The great value of alcohol as a quickly oxidizable hydro-carbon, requiring no digestion, and thus supplying fuel to a flame which has a certain time to burn.

10. The abuse of calomel in the treatment of our malarial and miasmatic fevers.

11. The value of forced alimentation.

12. The superiority of water as an antipyretic either by bath, douche, or compress, to the pharmaceutical antipyretics.

13. The value of these antipyretics rather as analgesics and hypnotics.

14. The wholly symptomatic treatment of fevers beyond the pale of specific medication, and where all efforts to break the fever must be discarded as useless and injurious, and where symptoms must be treated as they arise.

THE BIOLOGY OF THOUGHT, WITH SPECIAL REFERENCE TO THE ALIENATION OF THE MIND.

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VIII. THE WILL.

B. With Reference to the Object.

THERE has been much mockery upon metaphysics,* and in a measure with good ground. But he who undertakes to gain broad views of its history will discover the red tape of progressive development; he will remain satisfied that there are points gained in the course of centuries as solid as any in natural science.

* Than dropwise, the German bear, like German philosophy, must be swallowed at full gulps, and with the eyes shut. *Sax. Farina, II*
Signor To. 5 ed. ill.

One of these points is the principle, that THERE IS NO REALITY EXCEPT IN THE CONCEPTION WHICH WE FORM OF IT.

For psychology, and no less psychiatry, this principle is of the utmost consequence; it points out that, if the lunatics suffer from delusions, this is not owing to an exclusively pathological condition peculiar to their mind only; the object being biologically bound upon the subject, and conditioned by it, the healthiest man, the sanest mind, is exposed to delusions, be it ever so much illusions only that benevolently they are called.

To the common, the unphilosophical understanding, the world of objects tumbles into our head like rain from heaven, the average intelligence, once apperceiving, be it by hearing, sight or touch, and even by taste or smell, is sure to have reality, and never doubts of its objects. To the scientific mind, the critical observer, the world of objects, so far from being a gratuitous donation, a mechanical outcome of our senses, can be appropriated only by dint of extensive mental application; we have to work for the objects of our mental apprehension as strenuously as for those of bodily occupation; hither and thither wealth wants industry, and the history of science shows sufficiently how long it took man to look into conditions, and make himself familiar with relations, which for thousands of years had been lying open to his eyes; he persistently made them out differently from what he saw they were, after he had begun to look at them in their proper light.

There is, to be sure, no object without a subject to it, because it is only in the latter where it can appear. Consequently, according to how the subject is, the object will be. Hence the frequent difficulties of mutual understanding. Hence the thinness of the partition between madness and soundness of mind, and actions in the dreams of the sane which surpass the most extravagant transgressions of the lunatics. Hence all this kaleidoscopical world in which the objects are in continuous mutation. Hence the necessity of so much philosophy to—only begin to philosophize. The *Γνῶθι σεαυτόν*, know thyself! of Grecian antiquity, is not a problem which can be got out of the way by general doctrines or theory, but is one which wants practical solving by every single man, for himself, in most personal bearing and regard.

Dr. Tuke relates of a woman who would never take council of her former thousandfold unlucky experience with exploded fancies, but say "in regard to some fresh forebodings: 'I am sure this is true.' Referring to a person who had had similar notions, she would say: 'His were fanciful, mine are real.'" * This woman was a lunatic. But if the reader, whom we like to set down *a priori* as of an exceedingly sane mind, will please to establish within himself a court of psychological justice, and bring before that cases of

forebodings of his own, he will find that it is a task of utter difficulty, to establish a line, at the off-side of which is utter madness, and at the other nothing but soundness of mind, and if he wants a more "objective" test, he can be supplied with it in the discussions in common life, business or otherwise, of "real" and "fancy" value. Jobbers and agents handle this notion as though it were plain as fizzing, and yet with them it is all confusion, confusion, which can not be cleared up but by a bestowal of our principle. Political economy, even, and the great statesmen at the head of the destiny of the nations of the earth, are unaware of any deeper meaning of the term, and how far they miss the correct sense is shown by the degree of harmony which they have attained with reference to pertinent topics. In the sanctuaries of the Secretaries of the Treasury, as well as on 'Change, on the pulpits of the Professors of Political Economy, as well as in the manufactory-shops of the Knights of Labor and Socialists, the subjectivity is neglected, without which no object is, and value less than any. They all philosophize without due regard to the principle, that there is no reality except in the conception which we form of it, and think of value as a comparison of objects only, independent of the relation which it has to those who do the comparing. What is the idea of the value of a thing? Is it the same as price? By no means. The price of a thing is its cost. But that, we all know, and jobbers and Secretaries of Treasury should know it better than others, may be lower or higher than the value, according to how we struck our bargain. If the value of a thing were never higher than the price paid for it, there would never be any profit in dealing, whatever business we did. But as the value of an object is the bearing of its qualities, in comparison to its cost, on the will of the appraiser, proportionate to his means of acquisition,* it may in a given case, and will in all cases of prudent dealing, exceed the price (or cost), thereby establishing the possibility of profitable business for either party.† When a Vanderbilt buys a picture to his liking for \$200,000, it is called a fancy value, and when a grocer sells five cents worth of candy to a boy who has nothing but his nickel to invest, he calls that a real value. Now, then, is there any Professor of Political Economy who will dare draw between these two extremes the subtle line where the regions "really" are divided between real and fancy value? As little as we can "objectively" fix a point between the object and the subject.

A corollary of this relation of things is the connection between the object of the senses and the will of the subject of apprehension. This connec-

* Hildebrand's *Jahrbücher für Nationalökonomie und Statistik*, III, 3 and 4 (1864).

† The cure of a sick may be worth a thousandfold of what was paid for it to the physician, or may be altogether negative in its value, and the dead loss of the fee into the bargain.

tion is an intrinsic one, as far as the subject itself is concerned; the same sensorium which is the seat of our apprehensory function, is the metaphysical presence of our ulterior self, the positive existence of which is exhibited in the projecting fibres of the subcortical substance. And as subject and object in our apprehension are one, the objectivity of a thing never being accomplished except in our subjectivity, it follows that—in the nature of the object there goes for much the will of its subject.

To many of our readers this sounds perhaps a little like Hebrew. But they need only, from a different standpoint, try an explanation in the obscure field of the alienation of the mind, and they will soon find, that less intrusiveness on this intricate domain leads into the shallowness of superficiality.

A few examples will illustrate our theory. According to Brierre de Boismont, a lady, who, when she was insane, believed a particular person to be the enemy of mankind, informs us, that his appearance was then in no respect different from what it is now; but the patient added: " Ideally, he seemed nothing but Satan."^{*} Dr. Tuke mentions a case, "in which the patient, who was always suspecting plots against his life (*monomania of suspicion and persecution*), used to thrash the hedges and beat the walls with his stick, under the impression that they were his enemies."[†] Now, then, do not children similarly create images after their fancy, sit on chairs imagined a train? and is there any other moral faculty required but the will to perform this? Dr. Tuke adds in his case that, probably, "there was no actual illusion of the visual organs," and in Brierre de Boismont's case the lady herself explained her mistaking a man not looking like Satanas for the devil by "I do not think I had enough reasoning power to be aware of any inconsistency in my belief." She might as well have said, that the liveliness of her will to indulge in the illusion impaired the faculty of her prosencephalon lobes. Likewise children do not see the objects around them according to their imagination, but by virtue of the will which is alive in them. A passionate sportsman related, that when a boy he never viewed a waving grain-field but saw the wild boars, which were creating by their running about, all that movement. "The feelings," says Maudsley,[‡] reveal the real nature of the individual; it is from their depths that the impulses of action spring, the functions of the intellect being to guide and control." He says of a lunatic: "she knew perfectly well, but her unconscious vicious nature, ever prompting, surprised and overpowered conscious reflection, which was only occasional."[§] Proportionately there is in children, therefore, more will than in delibera-

tive adults. Because the child does "not perceive that it perceives,"* there is in it nothing but the first impulsive perception. Analogously in the insane. "The insane inmate of a pauper lunatic asylum, who is possessed with the delusion that he is the Almighty, and can do in an instant whatever he wills, begs humbly a trifling favor at the same moment that he proclaims his omnipotence,[†] and a *pendant* to this contrast I came across with in Spain: Passing in its cities one of the many beggars there are, while he is eating his dinner, one is surprised at the fastidiousness with which he will, stopping eating, offer you his miserable fare with the customary *Vd. gusta?* which, to a Spaniard, is the first requisite of good manners. But the equal footing on which he treats one with regard to this popular courtesy, does not prevent him, after having enjoyed the gratification of the *muchas gracias!* with which his generous offer is declined, from stretching out his hand with the eternal *un ochavito, Caballero!* In order to bring sense, if not in these facts, at least in our judgment of them, and not be in the same more crazy than the madman himself, we must settle upon the deduction, that the alienation of the mind of the lunatic is a disease of his will. For, in the before-mentioned case, for instance, the discernment as such, which is required for the idea of an alms, is perfectly sufficient for the distinction of almighty from poverty reduced to almstaking, and, consequently, from a lapsus like that which Maudsley relates can as little be diagnosed morbid derangement of the brain as in the case of the Spanish beggar, be it ever so little, the brains which had either of them. The madness of the inmate of the pauper asylum and the eccentricity of the Spanish beggar were not due to a diseased intellect, but to a perversion of the will, an adulteration of the disposition to apply the intellectual faculties. It is a fact with which every physician is familiar, that there is, for a sick person, no topic of paramount interest save that of his ailment. Now, then, "one thing fails not to be brought forcibly home to those who live among the insane, namely, how completely they are wrapped up in self, and what little hold the cares and calamities of those who have been living intimately with them ever take of them?"[‡] But this is not because of any intellectual incapacity to think compassionately. It would be absurd to assume more intellectual capacity as necessary to think compassionately than to think egotistically. No, it is because it is the positive part of their *ego*, that portion of their selfhood in which roots the will, which is sick, and which, just for that reason, is everlastingly prominent in their thoughts, upsetting them more or less at the same time.

All difference in the objects is in the difference of their being apperceived. But there is that

* Cf. Birkhill and Tuke, manual, p. 199.
† Pathology of the Mind, p. 229.

‡ L. C., p. 201.
§ Ibid., p. 245.

* Maudsley, I. c., p. 263. † Id., Ibid., p. 12. ‡ Maudsley, I. c., p. 240.

difference between the subjectivism of the sane and that of the insane mind, that the subjectivism of the latter is of a morbid kind, creating willful stuff without any willingness to look for vouchers in comparative discrimination. Analogously the eccentricities among the sane. Whenever there is what in colloquial language is called a craze, it has its psychological essentiality in this same indulgence in subjectivism, or the derouting of the will to see an object as it ought to be seen, by a will which is alien altogether to objective reality, and has aims which are contrary to clear conception, rather, than apt to promote it.

The detail of this process is by no means out of reach of psychological interpretation, and can physiologically even be brought nearer scientific evidence than from the metaphysical character of the object should be expected, nearer especially than ever the hybridizing exposition of "Mental Physiology" understood to bring it, in which we note, however, with particular gratification, occasional sentences of perfect agreement with our theory, although in flagrant contradiction to its own mongrel doctrine. We read in Carpenter,* in regard to an object of the memory, that it is altogether one-sided "where it is one in which our own feeling is interested," then "we are extremely apt to lose sight of what goes against them." The learned physiologist agrees with Dr. Skae, that "of all the features of insanity *morbid impulses, emotions and feelings*, and the *loss of control over them*, are the most essential and constant."[†] But the hybrid science moves in curious flippancy through unmatured phases of thought. Its theory is the precedence of thought to the will. But it calls "force the expression of will,"[‡] and knows of conditions where the thoughts may be cut adrift from the will, and "follow their own course."[§] "Mental physiology" must learn first to know the head from the tail.

Everywhere in the work of nature there is a gradation. To the uneducated eye the psychical relation continues to be an immaterial something which has the conditions of its vitality outside of itself. But scientific research, which is not so sophisticated by dishonesty, or muddled by prejudice, leads in the logic of thought to the deduction of uninterrupted relation of matter, all difference lying in modified manifestation.

On the lower or coarser fields of observation all causation in nature is characterized by evidence in the proportion of cause and effect. There is ever in the latter borne out all that is in the former. On taking from a pair of scales quantities of equal weight, the cock will not stir. Taking away from one, it will tilt over exactly to the amount of the weight, and this effect will be dou-

ble on doubling its cause. A couple of railroad trains running into each other, the smash will be in direct proportion to the pushing power exhibited. On more occult fields of nature's work there is less direct obviousness of the rule which as a general thing must hold good everywhere, that the effect of a cause has to tell somehow. No matter how the force is spent which is active, the particular relation of the condition which acts as a cause, to that which appears as its effect, is a hidden proportion: An electric battery needs acid to develop electric action. But this action, in lieu of getting stronger in proportion to the strength of the acid, stops altogether on addition of acid beyond a certain weak dilution. From the said general rule it would follow that two quarts of liquid need a vessel which is twice as large as one which holds one quart. But a two-quart vessel will not be filled if a mixture of alcohol or ammonia, one quart, and water, one quart, is poured into it.

More concealed yet are the relations on the domain of organized life. As a general rule, the principle obtains that purposive motion is restricted to animal organization. But this does not hold good with reference to the migrating plant, which will change its place moving towards places more favorable for its nutrition, nor indeed with reference to the growth of the roots of most plants, which will take place in anticipation of the region of most promising nutrition.

For all that, in vegetation, there is no occasion for the method of philosophizing, to comprehend the processes observed otherwise than as merely physiological, and we designate the obtaining relations as such of cause and effect.

Different in animal life. But this only, as a matter of course, in as far as the relations are concerned, which are peculiar to animal life. Man, in his most sublime mental development, remains, as a body, as much an object of the grossest relations of nature as a stone, subject to the laws of gravitation, statics and so forth, and also to those more intricate relations of vegetative life for which the category of cause and effect is an adequate expression. But aside from it there is a proportion which wants to be understood differently. In our sense of vision, where the point of transition can be more obviously located, the physiological relation of cause and effect goes as far as the commissure of the optic nerve. But thence it is lost. Our experimental physiologists speak of centres of vision, and feel extremely proud of their pretended discovery. But not one of them discovered the psychical centre of vision otherwise than negatively. The positive side of their discoveries never went beyond that of muscular action, a physiological, not a psychological relation. And the experimental physiologists, in order to try more, must cease to be physiologists. They must adopt the subjective method of psychology,

*Principles, p. 456.

[†]Carpenter, i. e., p. 703.

[‡]L. c., 670.

[§]Id., i. e., p. 544.

or prefer the ridicule of a mongrel mixture like that of "Mental Physiology."

In the lower phases of the change of matter the law obtains "like cause, like effect." But this is far from holding good in the psychical relations of man. Flattery will take effect in one man, or woman, but will not in some other. It will in one and the same person take effect, perhaps, in the morning, and will not in the afternoon. Generosity shown to one person will create gratitude, and the same generosity shown to some other person will create almost the reverse, or if not hatred, at least despise.

Now, then, this constitutes a difference, and the difference is, that the relations of nature which on its lower grades operate as cause and effect, appear in man as the proportion of **MOTIVE AND DEED**. It is in this relation that his actions are wrapped up, and that is why as a rule the relation is hidden, and can, by him who understands and wants to, be concealed altogether.

And this decides between the physiological and the psychological region. Wherever in the relation in question there can be **BODILY** traced cause and effect, it is physiology which is the topic in hand. Wherever this relation can not be traced as the proportion of action between two objective conditions, but may be comprehended **MENTALLY** only in the self-consciousness as motive and deed, the topic in hand is a psychological one, which should be controlled morphologically, but which can not be methodically treated except by the subjective method. And the *automaton* of "Mental Physiology" is a ludicrous truism in either case.

The relation of motive and deed can not be comprehended except in the self-consciousness of man. But self-consciousness is far from being requisite for the function of its agencies. It is a preconceived idea of human conceit and weakness, to doubt of the sensibility of so-called blind powers, and give no credit to any adaptation, except that of human concurrence with a lot of talk about it.*

But our own intelligence, even, is an outgrowth of those so-called blind powers, the very first understanding of an object being in its sensory apperception a motive for the will to a deed of intelligence. And this gives occasion to establish the principle, that there is no apperception, but it is in the sensory impression a motive for the will to a mental act, a stirring of the intellect being as little possible without a motive to act upon as without a will, be this will a conscious one or not. "Mental Physiology," as a matter of course, does not understand that. But this is only because the hybrid metaphysician-physiologists never analyzing their mongrel notions, did not clear up in their consciousness what they so much talk about, consciousness. Not giving a thought to this except where it appears as the abstract result of re-

fection, they never gained a knowledge of it in its primitive aspect. But as sure as the first grasping of an object, by the discriminating sensory apparatus of an animal, is a getting conscious of the same as the motive of ensuing action, and as necessarily as this consciousness is the condition of the understanding of the object, there is in every animal which reacts on sensory impressions in its sensory apparatus consciousness, this consciousness being the very process by which the existence of the said object is brought about as a psychological one. Consequently, intelligence is an actual faculty on a very low stage of organized life. It may be called the criterion of animalism. And the potentiality of nature from which it kinetically sprung and is in every instant born again, is the irritability of plants, which, in some specimens, can be observed even as the first attempts of nature upon individuality. All that the latter, in order to be more conspicuous in the vegetative kingdom, needs, is the acknowledgment of man, some more modesty on his side in meting out the proportions of macro- and microcosmic endowments. When a baby is laid on a first time, it is intelligence which makes it perform the sucking movement and press its little hands against the mammae to make the milk come more copiously. And whoever, in studying psychology, did more than sit at his desk and twist the hereditary treasure of metaphysical terminology, knows from his observation of actual life that there is a great difference between babies, human not only, but other mammals too, some one behaving at the fountains of love and life much more discreet than some other. And this discretion is absolutely none-other than that in an adult, who is abruptly placed in new surroundings and compelled to accommodate himself as good or as bad as he may, something which is very inferiorly accomplished by some, and very elegantly by others, irrespective of any previous knowledge, which, as a general notion in either case, might prevail, simply because the one was a mentally inferiorly gifted person, and the other was endowed with those happy psychical tendrils which will mentally grasp any object their owner come across with. This baby-intelligence is most conspicuous if the milk of the nurse happens to be defective, or not to the taste of the baby. It will instantly, on the first swallow, pull back, and scream his criticism into the world, as individually conscious of the motive of this its commentary, as the refusal of unsalted soup by a Professor of "Mental Physiology" of the London (Eng.) University, grandfather, etc., which indicates the same as an individual full of intelligence as to the difference of taste in a soup which was salted and one in which the salt was forgotten. But "Mental Physiology," as a matter of course, can not acknowledge that. What would become of all the laureates F. R. S., and Sir-inged M. D., if a little bit of *bambino* in swathes were to have in-

* Cf. Maudsley, I. c., p. 7.

telligence? Now, then, that does not know even that salt is chloride of sodium. Think only! That won't do. *Automaton*. There you are. That is good enough for babies! If a regular professor of physiology may not claim extra mentality, there is no telling how soon the classmates would find him out, or themselves as the dogs to whom metaphysics is thrown.

It is a notorious fact that often, as children, we have a *dégoût* against some dish which we outgrow, getting older, not unfrequently relishing considerably, as adults, the very preparation which we abhorred being young; adults, even, changing the climate they were brought up in, will at first spurn the very idea to adopt the way of living of the people of the country they went to, and soon, submitted to the influence of the same agents which worked upon the others, adopt the same habits, and change their judgment of the articles of food they take. Now, then, was the change of the objects in the objects? It is clear enough that the change wrought was in the subjects. Again, was it simply automatism, all this relation, purely mechanical like leverage or a falling stone? If yes has to be said to this question, then we had better let all psychological problems alone, reducing questions of moral philosophy and intellectual processes to technical theses and mechanical deduction. But whoever considers science as a means, not of a learned muddling of plain notions, but of a methodical arrangement of the ideas, which we gain in making investigations of nature in keeping with the feature she will show, if looked at as she ought to be looked at, without prejudice and an undercurrent of thought which is injurious to clear conception, must come to the conclusion that the impressions in the sensorium, or the images formed of the objects, meet there a condition previously set up by the inner life of the subject, which from its seat in the ventral cavity by the nerves distributed there is projected into the sensorium, and thereby made metaphysically present. That is why the taste, although one should think it were altogether in the mouth, is ruled by the stomach, even in its depravity, a depraved taste never co-existing with a healthy stomach. That is why anxiousness about objects, fear of relations of outward conditions to the own personality, which one should judge ought to be an outcome of exclusively the relation of the outer world to the perceptive faculties of the head, are often ruled by the rectum, the nervous connection of the same with the sensory ganglia setting up in the latter, a morbid condition which never fails to tell upon the conception which is formed of the outer world. That is why objects, the apperception of which, one should judge, could not be the outworking but of the function of the sensory apparatus, are conjured up in the mind of people who are sick with liver disease, who have no

healthy spleen, or whose intestinal canalization is not in a good working order.

"Love is blind" is an old poetical adage handed down to us from Grecian antiquity, and given credit for reason of its "classical" origin, to an extent which is altogether irrational. As an argument, as which, moreover, in the fancy of its author, it was never intended, there is nothing more silly in the world. Lovers learn of each other at a glance, in summary intuition, more than a professor of "Mental Physiology," in studious, deliberative research, finds out about them in a life-time, and it is simply absurd to speak in the case of the professor of intelligence, and in the case of the lovers of automatism, this senseless makeshift of discriminative impotence. Often enough, where intelligence seemed lacking, love called it forth,* to the astonishment of quite as wise men as the hybridizing philosophers, and if psychology continues in the caprice of restricting acts of intelligence to those, where old fogies crowd together with the fingers at their noses or the knobs of the canes under their chins, intelligence will soon be driven out of philosophy, and things turned generally topsy-turvy as the theory of the will now already in "Mental Physiology."

Love is will, and its objects are such as they are understood in the intelligence of their subjects, and if to the mind of other people, not smitten, it so often appears as though enamored youths would go right straight against good reason, this is either due to the circumstance that there are some people who consider all and everything to go against good reason which goes against their fancy, or to the vicious habits which by faulty education, or, perhaps, hereditary taint, were set up in the young folks, depraving the natural stirring of love by perverse inclinations, similarly as a healthy appetite is lost in morbid, preternatural cravings.

The objects of love are prone in the mind of the lover, on whose will in the apperception they operate as a motive, to much coloring. But if parents believe, that for this reason it is their reasoning which is to be preferred, they forget, that the reasons they have are in their own minds prone again to a coloring, a coloring *quam suis* to be sure, one, perhaps, without any trace of passion or beauty, but possibly, just for that reason, for reason of discoloration, worse than that of nature's own make, without any tricks of human finery and art.

For the government of the physiological experimentalists, who are very punctilious about matter-of-fact-circumstances, be it stated expressly, that the relation between the object and the sensory apparatus is that of cause and effect. But this relation, as physiological, does not stretch

*An Andalusian woman once remarked to the writer, that "if a girl loved a man, she would discover the means to see him, were she to dig them out of the centre of the earth."

beyond. The way in which the impression in the sensory apparatus does its ulterior mental work, is that of becoming a motive for the intellect to a deed of apperception by which the understanding of the object is accomplished, as far as it goes, this understanding being a referring of the impression to the condition of the object which caused it, and this exposition is in keeping with the teachings of physiology. "Light falling on the retina excites *sensory impulses*, and these passing up the optic nerve to certain parts of the brain, produce changes in certain cerebral structures, and thus give rise to what we call a *sensation*. . . ." * "In the mind these sensations are co-ordinated into a perception. . . ." † "Had we nothing more to depend on (than visual sensations) our sight would be almost valueless as far as any exact information of the external world was concerned. By association of the visual sensations with sensations of touch, and with sensations derived from the movements of the eyeballs required to make any such part of the field as corresponds to a particular object distinct, we are led to form judgments, i. e., to draw conclusions concerning the external world by means of an interpretation of our visual perceptions." ‡ Foster adds that in doing so, "we project our . . . sensations into the world outside us." § Now, then, it is precisely this judgment, as a requisite of the accomplishment of our sensory apperception, which withdraws as much such accomplishment from the region of cause and effect, necessitating for the same the category of motive and deed, as it exposes it to the coloring to which the subjectivism of the individual in the more or less peculiarity of its personality will find occasion.

The inferences which we have to make from these premises towards psychiatry are as obvious, as the special cases of insanity which come in are illustrative of the theory advanced. In the derangement of the intellectuality of the insane it is above all the overweening subjectivism which is the characteristic feature of the disease. "There are madmen," says Esquirol, "in whom it is difficult to discover any trace of hallucination, but there are none in whom the passions and moral affections are not disordered, perverted, or destroyed. I have, in this particular, met with no exceptions." || And this enunciation of the celebrated alienist becomes all the more significative by the circumstance, that delusions and hallucinations themselves are conjured up from below. They are not as it were indigenous to the brain, but manufactured in it by the blood-wave, perhaps, negatively, by a blood-wave which is defective, or by defects of tissue which the blood-wave failed to repair by timely supply. This is proven by the etiologically important circum-

stance, that insanity as a disease never starts with a delusion or a hallucination. The fact may obtain that with the latter only attention was drawn to the case. But an expert observer would have discovered the initial symptoms of insanity long before that, just because these are far from lying exclusively in the brain, the derangement of which, being secondary, the insane have often brains enough to conceal. Our manuals of psychiatry are more or less prolific in their exertions to classify insanity, more, perhaps, than is justified by the success which thus far crowned these exertions to bring order into madness. But howsoever systematically the judiciously practical sagacity of the different writers shape their topic, there is nowhere an underrating of the ventral cavity, acting by the blood-circulation, and extending thereby its influence upwards. From the idiot to the hopelessly demented, all practical alienists state in the insane such a morbid concentration of their inner self upon itself, that from this fact alone the diseased condition of their inner self must be inferred. And well may they dwell upon this prominent and never failing feature of insanity, for if there is any inference from the objects of madness, it is that of the will of the insane to form a conception of the same in precisely the crooked way in which they believe them real. And this trait of insanity is repeated as a feature of emotion in the healthy mind:

"O hateful error, melancholy's child !
Why dost thou show to the apt thoughts of men
The things that are not? O error, soon conceived,
Thou never com'st unto a happy birth,
But killst the mother that engender'd thee." *

This is the psychological side of the question. Maudsley gives the psychiatric one: "When a person has got so completely out of sane relations with his surroundings, as to cherish the sort of extravagant delusion which the monomaniac has, the plainest evidence affects him not in the least if it goes against his opinion, his judgment upon all matters that concern himself is utterly disorganized and rotten; it is engulfed in the morbid self." †

Where is the difference, save in the greater desperateness of the will of the lunatic to disorganize his intellect by his will?

Air in the Circulation.—Dr. Hare, says the *Medical Record*, has been making an experimental study of the effects of the entrance of air into the circulation, and has obtained results quite opposed to current surgical teaching regarding the matter. He experimented upon seventy dogs, of all sizes, ages and conditions. The conclusions he reaches are: 1. Death never occurs from the entrance of air into the ordinary veins of the body unless the quantity be enormous, from one to several pints, a quantity which can not enter, unless deliberately sent in by the surgeon. 2. The cases on record have been due to other causes than air, and have not been proved. 3. The tendency of the vessel to collapse and the leakage of blood prevent any entrance of air, and it would seem probable that a clot has generally caused death, not the air itself.

* M. Foster, "A Text-book of Physiology," p. 529. † Id. p. 532.
‡ Id. p. 568.

|| Bucknill and Tuke, "Manual," p. 184.

§ L. C., p. 583.

* Shakespeare, "Julius Cæsar," v., 3.
† "Pathology of the Mind," p. 434.

THE GOANESE IPECACUANHA, NAREGANIA ALATA.

By F. E. STEWART, M.D., PH. G.*

THIS plant seems to possess considerable power, and is worthy of further investigation. The plant is much used in India for rheumatism and so-called biliousness, and is supposed by the natives to have the power of "expelling bile." It is certainly an emetic, and in doses of from 12 to 20 grains prompt and vigorous emeses usually results. It has been employed successfully by Dr. Bidie of the Monegar Choultry Hospital, Madras, as an expectorant, and also for the treatment of dysentery. He reports a severe case of the latter disease, treated during a serious relapse, when the patient was much enfeebled, with 15 minimis of tr. opii, followed by 20 gr. doses of the drug under consideration, and says that after three such doses all traces of blood in the stools disappeared. It is to be regretted that the doctor gave opium at the same time, thus masking the effects of the other medicament.

Dr. Bidie's observations tend to the opinion that the entire powers of the drug are quite similar to those of the official ipecacuanha, 20 grains of the powder being sufficient to cause active vomiting in the adult. He reports success in the usage of it for the treatment of catarrhal affections (as an expectorant) and for cases of bronchitis in children.

In looking over the price lists of the various manufacturing houses, I found that Parke, Davis & Co.'s list a "Concentrated Tincture." I secured literature concerning this preparation, and find that it is prepared from the root and stems; that it is miscible with water, and that its dose is from 5 to 10 minimis as an alterative and expectorant, and as an emetic $\frac{1}{2}$ to $\frac{1}{2}$ fluid-drachm.

The Influence of the Climacteric upon the Origin and Form of Psychic Disturbances, by Matuach.†—The material of the Mecklenburg State Asylum, Sachsenberg, is especially appropriate for an investigation and weighing of such a question, as it includes patients from nearly all institutions of the country, and, again, the two quite important circumstances for the sexual life of the women, namely, large cities and industrial circles do not come into consideration; hence the social conditions are quite equal and favorable. Insanity, suicide and drunkenness reach during the climacteric a high number, according to all statistics. The writer includes all the psychic disturbances which have a connection symptomatically with the menopause, as well as regards the time. He also includes the later diseases which were preceded at the time of the menopause by some acute psychic disturbance, or which since then have presented anomalies as precursors of the final psychosis. Women at the climacteric age with regular menses are not reckoned in, etc. Sometimes, indeed, the climacteric is to be accepted before the menses

had ceased, especially where they still flow from some uterine trouble. This is seen in cases 1-5 in the original. The time of the climacteric is the same as in sane persons; its kind and duration also. Genital diseases of the climacteric appear to be more frequent in the insane. The climacteric diseases often began already at puberty. Single women and those who have borne many children are especially numerously represented. Many had suffered in puberty from psychic and nervous diseases; numbers of them during the middle age of life—cf. cases 7-20. There was a hereditary taint in 54.9 per cent. (unknown in 10.1 per cent.). The total number of these was 179 out of 551 female insane, which were observed from July 1st, 1884, to December 31st, 1888. Among the not climacteric patients there were somewhat more having a hereditary taint, because those thus more gravely afflicted were the sooner diseased. The number of those which fell sick later than the climacteric was still less. The hereditary predisposition is seen in the inclination to cyclic psychoses—cases 21-25—as well as the mixing of hysterical and epileptic traits in the picture of the disease, which chiefly were present in earlier life. There were sexual diseases during the climacteric in fifteen cases (cf. cases 38-44). In 30.6 per cent. there were developed cardiac insufficiencies, which origin could only in one case be traced back to articular rheumatism (cf. cases 45-56); in three cases there were indications of Basedow's disease. The cardiac insufficiencies appear to cause the menopause to run along over the period of sexual life. In the few cases where none of the diseases named were present, active exciting causes play an important part in the development of the psychosis during the climacteric (cf. cases 58-62). Only in a few cases does the climacteric alone come into consideration as a cause. The hysterical symptoms of the climacteric are chiefly the neurasthenic expressions of a morbid constitution which, however, is only acquired in a few cases. The frequent climacteric sensations of vertigo and vertiginous attacks as well the writer regards as signs of an epileptic constitution. In the twenty-seven cases of his where they appeared, there were many other peculiarities which spoke for this view (cf. cases 64-70). They were present in the not climacteric insane, also at the time of, or after the climacteric in six cases (cf. cases 71-73). Congestions are mostly accompanied by vertiginous attacks, and also belong to the province of epilepsy (cf. cases 74-75); the hemicraniae are also closely related to them. Roaring in the ears is relatively frequent, praecordial sensations nearly regularly, and often at the same time with cardiac insufficiencies, among which the writer reckons "enlargement of the heart, blowing at the ventricle-valves, and an increase and change of the second sound." They were present in 24.7 per cent., while in more than twenty women the more careful examination of the heart was not possible. Chlorosis and early arthrosis, the signs of hereditary weakness of the vaso-motor system, are of importance in this direction, and every inclination to insufficient cerebral nutrition explains the predominance of depressive form in the climacteric.

Then the writer considers the forms of the psychosis in the 179 cases. The cases of simple psychic disturbances presented a great predominance of misinterpretations of intestinal and other bodily symptoms, even in cases of melancholia which had recovered. Uncommonly frequently was the sensation of burning in the skin the cause of anxious and hallucinatory ideas. The erotic trait was present in a great measure in the abdominal sensations of climacteric patients (cf. cases 78 and 79). Roaring in the ears and gastric disturbances are frequent (in the females these former, in the males the stool causes the patients trouble, etc.). Losses of blood are not of decisive influence upon the supposed anaemia from which the nutritive disturbances are supposed to depend. Rather do the changes in the vaso-motor system and atherosclerosis, play an important rôle. The atherosclerosis acts in two ways, by continually lim-

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† Translated from the *Allgemeine Zeitschr. für Psychiatrie*, Band, 46, pp. 349-437. By Drs. A. Pick and F. H. Prichard, Boston, Mass.

iting the circulation and rendering the rigid tube more or less immovable. The action of the menstruation upon the mind consists in the congestion of the blood to the genitals; and indeed it may appear without a flow of blood. The designation climacteric psychoses is only of aetiological importance, the climacteric is only the cause of a psychosis and not itself a psychosis. It should not be reckoned among the senile psychoses.

Among 551 cases there were 10 with dementia paralytica which, without preceding syphilis, were aided in their outbreak by syphilis during the climacteric. On the whole, the climacteric is a frequent aetiological factor, but only with organic predisposition. The writer has observed menopause (60 cases), in the course of chronic psychoses; in 38 it was without influence, in 14 it had an aggravating, and in 13 certainly an improving influence, i. e., either as to their remaining the same, or becoming more insane (cf. case 88). Sometimes it gives rise to a periodicity which may lead one, by mistake, to think a recovery to have taken place. Further, it increases the predisposition to apoplexias, morbidity and mortality of the insane.

The Value of Water in Therapeutics.—An interesting discussion (reported in the *Medical Record*, February 9, 1889) took place at a recent meeting of the N. Y. County Medical Society. The discussion was opened by Dr. Baruch, who said he had found the internal use of water of great value in the treatment of dyspepsia, both recent and chronic. In recent cases washing the stomach would often bring about a cure in a very short period, while in chronic cases longer time was required, and the remedy had to be supplemented by stricter diet, and perhaps by drugs. The sipping of hot water some time before breakfast was also of benefit in some cases. Washing the stomach had been employed with success in gastric and gastro-intestinal disturbances of infants, and free irrigation of the stomach for ileus was a remedy which should be resorted to before laparotomy. Dr. Baruch could testify to the good effects of irrigation of the intestine in catarrhal jaundice, but this treatment had proved a failure in his hands in jaundice from gall-stones, although others had reported success. In summer diarrhoea it lessened the number and changed the character of the movements, and arrested purging. Cold water acted on the human body chiefly by mechanical and thermal influence. By its use changes could be wrought in the innervation of different parts, and in the circulatory system to the extent of producing only slight contraction of the blood-vessels, or of causing absolute death by shutting off all circulation. The agent was beneficial when applied to the surface in proportionary powers of the patient. The application of such briefly stated principles might be left to each practitioner, but Dr. Baruch mentioned chronic diseases involving faulty nutrition as those in which the external application of cold water afforded much satisfaction, especially in robust patients who reacted well under drying and friction after the cold bath; and in gastric and cardiac neurasthenia it went far toward restoring the health. The wet sheet involved the presence of a competent assistant, but sometimes promoted reaction better than the bath. In some chronic diseases the applications should be local. As the internal use of hot water had enabled him to dispense largely with such palliative remedies as pepsin, so had the external application of cold water enabled him to dispense largely with so-called tonic medicines. Cold water to reduce the temperature, and to stimulate the nerve-powers to reaction from the shock produced by cold upon a large surface, had obtained a wide application, as in hyperpyrexia from sunstroke, rheumatic fever, typhoid fever, etc. The author dwelt upon the greatly lessened mortality in typhoid fever in cases where the temperature was kept down by cold or tepid water, as shown by Brand's statistics and others. He had become convinced that the

ordinary treatment of typhoid fever should give way to the hydropathic method.

The discussion was continued by Dr. J. H. Dew, who treated the question chiefly from the physiological point of view. He first noted the following facts: 1. The chief component part of the human body in health was water; its relative proportion to all the solid constituents had been estimated to be two-thirds or three-fourths the entire weight of the person. 2. Water constituted almost the total volume of each one of the circulating fluids, including that of those of digestion. 3. It was the essential medium by which digestion was accomplished, absorption made possible, and the transportation of the elements of nutrition to the various tissues of the body was made easy. 4. As water entered so largely into the composition of the tissues it became of corresponding importance to every process in assimilation. 5. Water was the medium by which all waste matters were held in solution and conducted to their several points of exit. 6. Observations and experiments had shown that from three to four pints of liquid food were required to maintain normal functions and weight in an individual weighing one hundred and forty to one hundred and fifty pounds. 7. It was a clinical fact that persons thin in flesh were by habit, or for other reason, accustomed to take very small quantities of liquid food, while well-preserved and fleshy persons were copious drinkers of fluid in one form or another. 8. It was also a clinical fact that in every morbid or diseased condition of the system, whether organic or functional, the functions of digestion, absorption, assimilation, secretion, and excretion, embracing elimination, became in some way disturbed—sometimes one or more of these functions, at others all of them, to a greater or less degree in the same patient.

It thus became evident that water in its various applications was of extreme importance in the treatment of disease and the restoration of the normal functions of the body. Many physicians objected to the use of water at meals, seeming to forget that it was rapidly absorbed and took the place in the circulatory fluids of the large quantities of water which these gave up during the digestion and absorption of food in process of consumption. Water or liquid food was seldom taken in excess, but many persons took too little and suffered from deficiency in weight, dyspepsia, constipation, dryness and other disturbances of the skin, defective elimination, and all the symptoms brought about in consequence of such disturbances of normal function. The physician should always make careful inquiry as to how much his patients were taking of liquids in one form or another, and he would often be surprised to find that persons who should be eliminating from three to five pints were consuming but one or two pints.

Photographing a Nuisance.—One of the members of the Health Department in this city has secured the conviction of the owner of a smoking factory-chimney by photographing the top of the chimney in various stages of smokiness. A detective has recently secured the conviction of a violator of the Sunday liquor law by making an instantaneous photograph of the inside of the saloon, with a group composed of the saloon-keeper and several more or less prominent citizens. Possibly the portable camera may yet be a part of the outfit of the sanitary inspector.

Cholera Morbus vs. Homicide or Suicide.—Dr. W. S. Janney (*Medical and Surgical Reporter*) says: No healthy man or woman ever dies in this climate from cholera morbus. That is, persons of average strength and vitality and with no organic disease, dying with symptoms of cholera morbus, always die of poisoning, usually arsenic. All persons of previous good health, dying of cholera morbus, should be examined for poison which has probably been taken with criminal intent.

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THE IDEAL ASYLUM, A HOME, A HOSPITAL, AND AN EDUCATIONAL AND DEVELOPING INSTITUTION. THE STATE HOMOEOPATHIC ASYLUM FOR THE INSANE AT MIDDLETOWN, N. Y. ITS INDIVIDUALITY, AND HOW IT ATTAINS THIS IDEAL.

RAPID as has been the advance in scientific treatment of the insane during the past fifty years, there is yet much difference of opinion as to the true scope of an asylum, and the best means and measures for curing insanity. We venture the assertion that every superintendent of an asylum in the country has and has tried his own methods, based upon past experience and continued observation; and with more or less success. Our senior and long established brethren of the other school have, till within the last quarter of a century, monopolized at least within this country the treatment of the insane in most asylums. They have met with much success, and are still doing good work for the community. But so great has been the rate of recovery, and so low the death rate, and all in so short a time, at Middletown, that the attention of the medical fraternity and general public has been diverted from the old and long-honored school to the startling results achieved by the new institution. For the year ending September 30, 1889, the State Homœopathic Asylum for the Insane at Middletown, N. Y., shows the remarkable rate of recovery on the whole number discharged of 51.79, the death rate on the whole number treated being as low as 2.11. Whence this extraordinary success? Why should this young

asylum, a stripling of twenty years' growth, cover at a bound the ground already traversed by its giant brothers? Because nowhere else does the word asylum mean home, hospital and school. Because the Middletown, N. Y., Asylum is bold enough to be individual, to break loose from the shackles of old notions and try its own strength in new departures. The existence in the community of the following lunatics, more or less dangerous, demands the aforesaid character of the asylum. The cunning and inquisitorial paranoiac, whose insane freaks and torturing acts rob a family of domestic peace and mar their lives—the Nero or Caligula of private life, should be removed to another home, and his victims thereby relieved and bidden to be happy. The right to protect itself from unruly members is as equally inherent in the family as in the State. Should the dissipated and heartlessly cruel, the queer, hysterical, the moral torturer, be allowed to wreck the happiness of the home any more than a Catailine, Benedict Arnold, or a Burr that of the State? Such find a home, really a home, in the Middletown, N. Y., Asylum, are there treated, prevented from practicing on others, and oftentimes a new set of impulses gradually replace the old, and make the man a blessing, not a curse. In such an asylum they have comforts and æsthetic environment, while they can no longer hamper the action or undermine the happiness of their relatives. They undergo friction from good minds, attend the asylum school, discover in themselves new and unthought-of talents, get their angles rubbed off by doses of self-denial, kindly administered by those in charge, and come out of the process new men and women. Besides being a home, an asylum should in the highest sense be a hospital. Those afflicted with acute and curable insanity should be treated scientifically. Heat, milk (especially hot milk) and rest have been found to be efficacious means in relieving and curing insanity. Add to these the skill of the trained nurse, now annually graduated from the asylum training school for nurses, and you have another necessary element in the make-up of a good hospital. The bed treatment, as in use at the Middletown, N. Y., Asylum, has been found very beneficial.

It conserves the forces of the aged, keeps clean the filthy and calms the excited. This treatment exacts more from attendants, but is found more satisfactory than allowing such cases to roam at will about the hall or sit tied in chairs during the day. Every patient in this asylum has his "regular medicine," changed only on the appearance of new symptoms. The diet, a result

of long study of dietary methods, is nourishing, easily assimilated, and a great fat producer. The dictum at Middletown is "Get fat!" for with weight comes a building up of the nervous system and a healthy and consistent action of mind. Finally, an asylum should be an educator and school of developing, and it is in this character that the Middletown, N. Y., Asylum is a special success. The evils of mis-directed or one-sided education; the distorted character produced by a life built upon false philosophy, an over-sensitive rearing and self-indulgence, should be corrected in a well-conducted asylum. The self-control imposed by a continuous confinement on the dissipated and refractory is especially beneficial in supplying that basis to characters otherwise capable of attaining great success in life. The school daily held at the asylum by a competent teacher is a great aid in correcting defects of early education, in exciting a healthy interest in intellectual, as opposed to indolent life, and in the recovering of lost powers. When depressed many lose the trick of figuring, and instances are known of the gift being coaxed back by practice at the blackboard and friendly encouragement on the part of the teacher. To many young fellows from the interior counties of the State the asylum has been teacher and friend. Each case is studied by the doctor in charge, like the single specimen by the naturalist. On his entrance a complete and confidential manifestation of the patient's past life and present condition is obtained and noted down on blanks already prepared and covering the whole ground. He is observed, watched in a friendly spirit, and encouraged to improve by tactful and pleasant reminders of his deficiencies. Self-control is thus acquired. Amusements, prominent among which are acting and base ball, have been found very great aids in curing the manifold varieties of depression. Last season the asylum base ball team won the championship of Middletown, and we understand the nine will be even stronger during the coming season. We have thus tried to show the ideal asylum to be necessarily a home, a hospital and school. We must then commend the Middletown, N. Y., Asylum, for its efforts in attaining this ideal. Finally, it remains to direct attention to the nineteenth annual report of the State Homoeopathic Asylum for the Insane at Middletown, N. Y., transmitted to the Legislature, January, 1890. The timely warning therein voiced, and the dangers our generation should guard against are there put so forcibly that the mind is arrested and made to reflect upon its courses.

A NATURAL METHOD OF PHYSICAL TRAINING.*

IF THE scientist could devise some plan of so regulating the different organs of the human system as to make them act in harmony, each performing its proper functions only, there is no doubt but life would be prolonged, obesity controlled or prevented, and a large number of diseases be known only by the records of the past. Many plans have been formulated to prevent obesity. Among the most prominent are those of Banting, where the diet consists chiefly of albumen. The rapid reduction in fat sometimes obtained by this process is not unfrequently attended by danger in weakening the action of the heart as well as the strength of other organs. Ebstern's plan admits of fatty food, but almost excludes carbo-hydrates which include the starches and sugars. The basis of Oertel's system, which is the system, with slight modifications, of the physician of Prince Bismarck, is an absence of fluids at meals and only a moderate amount at any other time, with an increased exhalation from the lungs and skin. This is produced in part by active exercise, hot air and vapor baths. A more liberal diet is allowed than in either the Banting or Ebstein system, but still the starch and sugar foods are only allowed in small quantities.

All of these systems require a very careful individualization of cases, and even then are often marked by failure. It has often been observed that very large persons with an excess of fat are not by any means the largest feeders. We know of one man who, in his great desire to get rid of some of his surplus fat and thereby reduce his size, lived on one meal a day for a year, taking no fluids except a single glass of claret and water, and working hard every day, and yet at the expiration of the year he was only half a pound lighter than when he started his treatment. It is very evident that neither of the systems mentioned will apply in every case. A young man educated as an engineer, and accustomed to study in his profession the harmony of parts, applies the principles thus obtained to the careful study of the most perfect machine in the world, the human body, and finds, he thinks, a solution of the question which the scientist and philosopher in the past have so long in vain tried to solve. The essence of Mr. Checkley's system is that the ordinary movements of everyday life, breathing, walking, stooping, etc., can be made to develop the body so perfectly in the routine course of everyday life not only sufficient to prevent any unnatural and unhuman increase of size, but also to bring the

* "A Natural Method of Physical Training," by Edwin Checkley.

body up to a full natural development with all that vigor and beauty of motion characterized by the harmonious action of all the organs. In truth, there can be no proper training that does not educate the whole system of the man. Mr. Checkley's ideas are particularly applicable to women, not only in her movements, but especially in her dress, which he claims, if properly carried out, will not only give a perfect form, but do away with a large portion of those pelvic diseases to relieve which a very large class of specialists are acquiring not only professional reputation but wealth. The system of Mr. Checkley promises, by the proper control of all the organs, much better results than can be obtained by the exclusions of different kinds of foods. The system in its healthy condition, with each muscle and bone and tissue doing its proper work, takes up only the necessary ingredients from the food to accomplish its purpose, getting rid of the rest in the form of excrementitious material.

WARD'S ISLAND HOSPITAL.

DR STRONG has resigned his position as Chief of Staff of Ward's Island Hospital, after a service of seven years, to engage in the more lucrative work of private practice. A farewell dinner was given to the retiring Chief of Staff by the Medical Board at the *Cambridge*, which called forth hearty expressions of good-will from all, united with a fervent wish for the prosperity and happiness of their guest. The Hospital has been fortunate in securing as a successor to Dr. Strong, Dr. George Taylor Stewart, an A. B. and A. M. of Trinity College, Hartford, Conn., an M. D. of Hahnemann College, Philadelphia, and a former Interne of this institution. Dr. Stewart is the son of the Hon. Thomas E. Stewart, who will be remembered as a former member of Congress and a prominent member of the bar of this city, and brings to his new duties a reputation of ripe scholarship and skillful work in his profession. The four vacancies for Interne have been filled by competitive examination to the entire satisfaction of the examining committee. By the present arrangement the term of service of the Internes is one year, during which time, as assistant and house physician and surgeon, they have the advantage of all the departments of hospital service. The hospital in its surgical and medical department always contain more or less cases of marked interest, a careful study of which are full of instruction. The Training School for Nurses which will shortly be organized, will not only increase the efficiency of the nursing service, but give the

Department a Training School for each of its three great hospitals, Bellevue, Blackwell's Island and Ward's Island, and an ample supply of trained and efficient nurses for all the institutions under its care.

CUMBERLAND STREET HOSPITAL.

THE Brooklyn Cumberland Street Hospital, organized by the late Dr. Sumner, one of the founders and editors of this journal, has recently completed an addition, making its capacity 135 beds, which makes it one of the largest hospitals in the city. It has an admirable training school, an excellent medical and surgical staff, and an ambulance service second to none in Brooklyn. The hospital receives an annual appropriation from the city, which, with the funds raised by its energetic and ever-active Board of Trustees and Ladies' Association, is sufficient to meet the expenses of its large charity wards, which, together with the private rooms, are nearly always full. We know of no hospital doing better work than the Homoeopathic Hospital in Cumberland Street, Brooklyn.

THE Rev. T. De Witt Talmage, in his Easter sermon, drew a startling picture of the graves giving up their dead on the morning of the Resurrection, and the myriads of bodies filling the air and making it radiant with their beautiful forms. "What though the grave is a rough place," he said, "it is a resurrection body manufactory, and from it shall come the radiant and resplendent forms of our friends on the brightest morning the world ever saw. You put into a factory cotton, and it comes out apparel. You put into a factory lumber, and it comes out pianos and organs. And so into the factory of the grave you put in pneumonia and consumption, and they come out health. You put in groans, and they come out hallelujahs. For us on the final day the most attractive places will not be the parks and the gardens or the palaces, but the cemeteries," and so on to the end of the chapter. We do not suppose the eloquent preacher or any of his hearers really believed one word of what he said, but the wild imagery and vivid coloring left anything but a healthy impression on the mind. We supposed and hoped that such preaching was a thing of that past in which the melodrama of the Old Bowery and Chatham Theatres flourished, manufacturing with their blood and thunder plays scores of young ruffians, and certainly did not expect to hear it in the year 1890 from a Doctor of Divinity in a prominent church in the cultured City of Brooklyn.

THE Chief of the New York Signal Service Bureau says that the year 1889 was the warmest and wettest on record, the total rain-fall in this city being 58.68 inches. The winter was the warmest on record. There was an excess of 125 degrees of temperature above the normal in November and 348 degrees in December. For the reason that the seasons usually equalize themselves, a cool summer is predicted. The coldest day in the year was March 7th, when the thermometer touched six degrees, and five days after the thermometer reached 71, being the warmest day of winter. The fall of snow has been extremely light, being only 33 inches for the whole winter. The humidity at times was so great as to amount to almost a complete saturation of the atmosphere. More than once the rain could be seen falling briskly, with a clear sky in which a bright sun was shining. The mild weather is attributed by the Chief of the Bureau to the constant succession of storms in high latitudes which attracted large volumes of warm air from the South. With the exception of the epidemic of the "Grippe," the season has been an unusually healthy one, the death rate in at least two of the winter months being less than in any other similar months in the history of the Health Department since it was organized in 1866.

PAINLESS SURGERY.

THE *Leeds Scotsman* contains an interesting account of a séance held in that city recently, during which various painless surgical operations were performed by means of hypnotic suggestion. The account is so interesting that we quote at considerable length.

The first case brought into the room was a woman of twenty-five. She was hypnotized at a word by Dr. Bramwell, and told she was to submit to three teeth being extracted without pain at the hands of Mr. T. Carter, and further that she was to do anything that Mr. Carter asked her to do (such as to open her mouth and spit out, and the like) as he required her. This was perfectly successful. There was no expression of pain in the face, no cry, and when told to awake she said she had not the least pain in the gums, nor had she felt the operation. Dr. Bramwell then hypnotized her, and ordered her to leave the room and go upstairs to the waiting-room. This she did as a complete somnambulist.

The next case was that of a servant girl, aged nineteen, on whom, under the hypnotic influence induced by Dr. Bramwell, a large lachrymal abscess, extending into the cheek, had a fortnight previously been opened and scraped freely, without knowledge or pain. Furthermore, the dressing had been daily performed and the cavity freely syringed out under hypnotic anesthesia, the "healing suggestions" being daily given to the patient, to which Dr. Bramwell in a great measure attributes the very rapid healing, which took place in ten days—a remarkably short space of time in a girl in a by no means good state of

health. She was put to sleep by the following letter from Dr. Bramwell, addressed to Mr. Turner, the operating dentist in the case:

"Burlington Crescent, Goole, Yorks.

"Dear Mr. Turner,—I send you a patient with enclosed order. When you give it her, she will fall asleep at once and obey your commands.

(Signed) "J. MILNE BRAMWELL."

"Go to sleep by order of Dr. Bramwell and obey Mr. Turner's commands." "J. MILNE BRAMWELL."

This experiment answered perfectly. Sleep was induced at once by reading the note, and was so profound that at the end of a lengthy operation, in which sixteen stumps were removed, she awoke smiling, and insisted that she had felt no pain; and, what was remarkable, there was no pain in her mouth. She was found after some time, when unobserved, reading the *Graphic* in the waiting-room as if nothing had happened. During the whole time she did everything which Mr. Turner suggested, but it was observed that there was a diminished flow of saliva, and that the corneal reflexes were absent; the breathing was more noisy than ordinary, and the pulse slower. Dr. Bramwell took occasion to explain that the next case, a boy of eight, was a severe test, and would not probably succeed; partly because the patient was so young, and chiefly because he had not attempted to produce hypnotic anesthesia earlier than two days before. He also explained that patients require training in this form of anesthesia, the time of training or preparation varying with each individual. However, he was so far hypnotized that he allowed Mr. Mayo Robson to operate on the great toe, removing a bony growth and part of the first phalanx with no more than a few cries towards the close of the operation, and with the result that when questioned afterwards he appeared to know very little of what had been done. It was necessary in his case for Dr. Bramwell to repeat the hypnotic suggestions. Dr. Bramwell remarked that he wished to show a case that was less likely to be perfectly successful than the others, so as to enable those present to see the difficult as well as the apparently easy, straightforward cases.

The next case was a girl of fifteen, highly sensitive, requiring the removal of enlarged tonsils. At the request of Dr. Bramwell, Mr. Bendlack Heweton was enabled, whilst the patient was in the hypnotic state, to extract each tonsil with ease, the girl, by suggestion of the hypnotizer, obeying every request of the operator, though in a state of perfect anesthesia. In the same way Mr. Heweson removed a cyst of the size of a horse-bean from the side of the nose of a young woman who was perfectly anaesthetic, breathing deeply, and who, on coming round by order, protested "that the operation had not been commenced."

Mr. Turner then extracted two large molar teeth from a man with equal success, after which Dr. Bramwell explained how his patient had been completely cured of drunkenness by hypnotic suggestion. To prove this, to those present, and to show the interesting psychological results, the man was hypnotized, and in that state he was shown a glass of water, which he was told by Dr. Bramwell was "bad beer." He was then told to awake, and the glass of water (so-called bad beer) was offered him by Dr. Bramwell. He put it to his lips, and at once spat out the "offensive liquid." Other interesting phenomena were illustrated and explained by means of this patient, who was a hale, strong working man.

Mr. Tom Carter next extricated a very difficult impacted

stump from a railway navvy as successfully as the previous case. Dr. Bramwell described how this man had been completely cured of very obstinate facial neuralgia by hypnotism. The malady had been produced by working in a wet cutting, and had previously defied all medical treatment. On the third day of hypnotism the neuralgia had entirely disappeared (weeks ago), and had not returned. The man had obtained also refreshing hypnotic sleep at night, being put to sleep by his daughter through a note from Dr. Bramwell, and on one occasion by a telegram, both methods succeeding perfectly.

IN a recent case in Philadelphia the judge ruled that in the oath required by a witness, kissing the bible was not necessary to render the oath valid, that it was, in fact, a relic of idolatry, and should be abolished. There are a good many of these relics of idolatry clinging to the forms and ceremonies of life with no meaning, pernicious to health, and which should be abolished. The old duty bible upon which the oath is taken has been pressed to the lips of hundreds in every grade of life. Lips filthy with disease leave their poisonous imprint where, a few moments after, the poison can be transmitted to the pure lips of innocence, tainting the body with a loathsome disease. The custom of holding some sacred object in the hand while taking the oath is of Pagan origin, and is continued simply because judges have never thought of the utter uselessness of the action and of the absolute indelicacy and danger of its being observed. One reason why in the Catholic Church the priest partakes of the wine for the people, instead of the cup being passed from one to the other, as in other churches, is undoubtedly that the symbol is just as well carried out, and in a much more cleanly manner.

INVITATION TO THE TENTH INTERNATIONAL MEDICAL CONGRESS.

In accordance with the decision of the Ninth Congress at Washington, the Tenth International Medical Congress will be held at Berlin from the 4th to the 9th of August, 1890.

By the delegates of the German Medical Faculties and the chief Medical Societies of the German Empire, the undersigned have been appointed members of the General Committee on Organization. A Special Committee on Organization has also been appointed for each of the different sections, to arrange the scientific problems to be discussed at the meetings of the respective sections. An International Medical and Scientific Exhibition will also be held by the Congress.

We have the honor to inform you of the above decisions, and at the same time to cordially invite your attendance at the Congress. We should esteem it a favor if you would kindly extend this invitation to your friends in medical circles, as may offer.

We beg to accompany our invitation by a copy of the

Statutes and Programme, as also a list of the intended sections and their Special Committees on Organization.

DR. RUDOLF VIRCHOW, President.
DR. VON BERGMANN,
DR. LEYDEN,
DR. WALDEYER
DR. LASSAR, General Secretary.

Vice-Presidents.

All communications must be directed to the General Secretary, Berlin NW., Karlstrasse 19.

REGULATIONS AND PROGRAMME.

I. The Tenth International Medical Congress will be opened in Berlin on Monday, August 4th, 1890, and will be closed on Saturday, August 9th.

II. The Congress shall consist of legally qualified medical men who have inscribed themselves as members and have paid for their card of membership. Other men of science who interest themselves in the work of the Congress may be admitted as extraordinary members.

Those who take part in the Congress shall pay a subscription of 20 marks (£1 or \$5) on being enrolled as members. For this sum they shall receive a copy of the Transactions as soon as they appear. The enrollment shall take place at the beginning of the Congress. Gentlemen may, however, be enrolled as members by sending the amount of the subscription to the Treasurer* with their name, professional status and residence appended.

III. The object of the Congress is an exclusively scientific one.

IV. The work of the Congress will be discharged by eighteen different Sections. The members shall declare upon enrollment to which Section or Sections they intend more particularly to attach themselves.

V. The Committee on Organization shall, at the opening sitting of the Congress, suggest the election of a definite committee (or bureau), which shall consist of a President, three Vice-Presidents, and of a number (as yet undetermined) of Honorary Presidents and Secretaries.

At the first meeting of each Section a President and a certain number of Honorary Presidents shall be elected; these latter shall conduct the business of the Sections in turn with the Presidents.

On account of the different languages employed, a suitable number of Secretaries shall be chosen from among the foreign members. The duties of the foreign Secretaries shall be confined to the meetings of the Congress.

After the termination of the Congress the editing of the Transactions shall be carried out by a committee especially appointed for this purpose.

VI. The Congress will assemble daily, either for a General Meeting or for the labors of the different Sections.

The General Meetings will be held between 11 and 2 o'clock. Three such meetings will take place.

The time for the meetings of the various Sections will be fixed by the special committee of each Section, it being understood, however, that no such meetings are to take place during the hours allotted to the General Meetings.

Joint meetings of two or more Sections may be held, provided that the Bureau of the Congress can offer suitable rooms for such meetings.

VII. The General Meetings shall be devoted to (a) transactions connected with the work and general management of the Congress; (b) addresses and communications of general interest.

VIII. Addresses in the general meetings, as well as in any extraordinary meetings which may be determined upon, can only be given by those who have been especially requested by the Committee on Organization.

IX. In the meetings of the Sections, questions and problems will be discussed which have been agreed upon by the Special Committee on Organization. The communications

* Treasurer's address: DR. M. BARTELS, Berlin SW., Leipzigerstrasse 75. Please inclose a visiting card.

of those appointed by the committee to report on a subject shall form the basis of discussion. As far as time allows, other communications or proposals, proceeding from members and sanctioned by the Committee on Organization, may also be introduced for discussion. The Bureau of each Section decides as to the acceptance of such offered communications, and as to the order in which they shall come before the meeting, always provided that this point has not been already determined in the meeting itself by a decree of the Section.

Scientific questions shall not be put to a vote.

X. Introductory addresses in the Sections must, as a rule, not exceed *twenty minutes in length*. In the discussions no more than *ten minutes* are allowed to each speaker.

XI. All addresses and papers in the general and sectional meetings must be handed over to the Secretaries in writing before the end of the meeting. The Editorial Committee shall decide whether—and to what extent—these written contributions shall be included in the printed Transactions of the Congress. The Members who have taken part in the discussions will be requested to hand over to the Secretaries, before the end of the day, in writing, the substance of their remarks.

XII. The official languages of all the meetings shall be German, English and French. The Regulations, the Programme and the Addenda for the day will be printed in all three languages.

It will, however, be allowable to make use of other languages than the above for brief remarks, always provided that one of the Members present is ready to translate such remarks into one of the official languages.

XIII. The Acting President shall conduct the business of each meeting according to the Parliamentary rules generally accepted in deliberative assemblies.

XIV. Medical Students and other persons, ladies and gentlemen, who are not Physicians, but who take a special interest in the work of a particular meeting, may be invited by the President or be allowed to attend the meeting by special permission.

XV. Communications or inquiries regarding the business of separate Sections must be addressed to the managing members thereof. All other communications and inquiries must be directed to the General Secretary, Dr. Lassar, Berlin NW., 19 Karlstrasse.

(The Committee on Transportation has made exclusive arrangements with the Hamburg-American Packet Co. for passage to and from America. American delegates to the Congress are recommended the route via Hamburg as the most convenient, Hamburg being geographically the nearest point to Berlin.)

Round-trip ticket \$150 and \$200.

BIBLIOGRAPHICAL.

"THE SHIP'S SURGEON OF TO-DAY."

This pamphlet has been published in the interests of the travelling public, American and British, saloon and steerage, not forgetting the members of the crews, in order to draw attention to the neglect of Ship's Sanitation and to the evasion—in the case of one fashionable Atlantic Line for the past four years—by Steamship Managers and their Ships' Surgeons of the Sanitary Regulations of Her Majesty's Board of Trade and Passengers' Act.

In performing this duty conscientiously, says the author, my pamphlet has received the hearty approval and support of the British Medical Press.

But the expenses, about £40, connected with publishing, can hardly be defrayed out of a weekly income of some fourteen shillings (derived from my sixpenny dispensary in Bootle), after deducting for rent, board and drug bill.

My brother, Canon Ambrose Leet, D. D., of Dublin, Chap-

lain to H. E. the Lord Lieutenant, will gladly acknowledge any contributions towards aiding my efforts in this reformation, and assisting my Dispensary for the Poor.

My Sanitary Reports and Letters on the subject, readily published by *The British Medical Journal*, December 21st, 1889, and *The Lancet*, January 4th, 1890, should be studied by the Press, Lay and Medical, British and American.

"What hope can there be of reform in the Medical Department of the British Mercantile Marine? None, I fear, from this side of the Atlantic; but the Americans will doubtless follow the precedent so successfully carried out in 1882, and once again appeal to the British Government through our Consul-General in New York."—*Lancet*, January 4th, 1890.

TWENTIETH ANNUAL REPORT OF THE BOARD OF DIRECTORS OF THE MANHATTAN EYE AND EAR HOSPITAL, WITH THROAT AND NERVOUS DEPARTMENTS. 103 Park Ave., New York.

This hospital is supported by *voluntary contributions*, and is only intended for the free treatment of such as are too poor to pay for medical advice. Open daily at 2 P.M. (except on Sundays). As the hospital is designed for the indigent only, all others are excluded by express order of the directors. Physicians and friends are urged to discourage persons who are able to pay for medical services from applying for treatment.

The surgeons report that during the year ending September 30th, 1889, the number of new patients received at the hospital was 10,977. Eye department, 6,904; ear department, 1,924; throat department, 1,535; nerve department, 614; total number of visits made by patients, 57,445; daily average attendance, 188½; patients refused treatment on account of ability to pay, 538; Roman Catholics, 57 per cent., 6,248; Protestants, 38 per cent., 4,109; Hebrews, 5 per cent., 603.

Hæmoglobin Compound, or Bullock's Blood in Therapeutics. By F. E. Stewart, M. D., Ph. G., Physician for the Institution for the Therapeutic Application of Physical Agencies, Wilmington, Delaware, formerly Lecturer in Materia Medica and Pharmacy in the Medico-Chirurgical College of Philadelphia; Demonstrator of Pharmacy in the Woman's Medical College of Pennsylvania; Permanent Member of the American Medical Association, Member of the American Pharmaceutical Association; Member Judicial Council, Section Materia Medica and Therapeutics, Ninth International Medical Congress, etc., etc. Published by the Scientific Department of Parke, Davis and Co., New York and Detroit.

This interesting and instructive pamphlet will be sent to the readers of the *TIIMES* upon application to the publishers.

SOME FALLACIES CONCERNING SYPHILIS. By E. L. Keyes, M. D. Detroit: George S. Davis, 1890. Paper, 25 cents; Cloth, 50 cents.

One of the most prominent specialists in New York has placed the public under lasting obligations, by giving a running commentary on thirteen fallacies in the prognosis and treatment of syphilis which, through the influence of quacks and ignorant physicians, have taken firm hold of the public mind. The little brochure is timely and will do great good.

A Remedy for the Galvanic Taste.—Dr. Leslie Phillips (*British Medical Journal*) has found that a little pinch of coffee chewed from time to time is an efficient antidote to the disagreeable taste consequent upon galvanization of the head and neck.

CORRESPONDENCE.

Editors New York Medical Times:

When Theophrastus Bombastus Paracelsus ab Hohenheim flew into passion in his polemics against the scholastic adversaries of his new ideas—a not very rare occurrence—the principal argument he made use of was an apostrophe, in which he administered to them a shower-bath of the expressive epithets of which the lexicography of his time was so teeming. What he said was, in substance: "I am the man of the age; you are all blockheads who know nothing."

The coarseness of this method is unparalleled in the history of medicine, our own time trying to excel even by a certain coquetry with daintiness of expression. But as to the essentiality of Paracelsus' argumentation, medical writers are in profusion who, although not actually, but virtually must plead guilty of the same homespun method of the coarse-grained genius. The way of expressing the thoughts is different; but the *modus procedendi* in thinking is the same. Theophrastus did not, what present writers religiously observe, spare the feelings of the brethren. His was not the well-bred modesty which, hat in hand, parabolically bows to the opinion of the *confrère*, by which our time of sterilized passion tries to kill out the venom of literary dissension. But the mistake is great which is entertained by the kid-gloved champions of our arenas of printer's ink and cellulose, that such courteousness constitutes the true title to a scientific character. A writer can be extremely polite, and yet lack every trace of scientific merit, reminding of Hamlet's dire criticism of his uncle-father:

"That one may smile, and smile, and be a villain."

There is a solecism even in scientific language, which is by far more blamable than the harsh vulgarities of Paracelsus. This is the persistency in ignoring opposite opinions, desist from their critique, because the interest by which the writer is moved, in putting forth his ideas, is not to promote science, but simply to say his say. Over-engrossed with self (a tendency which our psychiatrists tell us is most prolific among their patients), they do not delight in keeping busy with anybody's opinion save their own.

What may be the cause of overabundance of such cases among the medical profession, quite against the severer customs which prevail in other scientific branches? To my mind it is the habit of the physician to proceed *en artiste*. From an artistic standpoint it must be tolerated, the individual overbearing of a "Just let me do that, and you will see something," for art refers ever to a doing, and this can never be warranted except by a doing. It refers to manual skill and practical grip, and never comes in in science and theoretical reflection, and if in medical literature the writer simply says his say without refuting the adversary's opinion, if he can, combating it at any rate, he makes himself guilty in scientific intent of as gross a solecism, as *grossièressés* must be laid at the door of the impetuous Paracelsus, who, if he deserves no other monument, erected himself that of the first man in Europe who *ex cathedra* dared speak his own language, instead of the sepulchral idiom of fossilizing scholasticism, Latin.

Thus far therapeutics only were the scene of the medical *Roma locuta est*, and suffered by it, leaving the scientific standing of *materia medica* about where it stood 2,000 years ago (Headland). Dietetics, the springy upshot of a laudable return to common sense, however, is threatened with a relapse into the marasmus of the same old rut, if not the good example is followed set by a few of the foremost writers—a very few, indeed—who in writing at least do not keep up the tactics which at the bedside, from obvious reasons, may eternise the saying, that medicine is an art and not a science, and *en véritables hommes de let-*

tres let in place of their authority speak their arguments. Dietetics is a science. If it must be admitted that it is an art, to do the cooking, it is for sure no artistic, but a scientific act, to give the *recipe*.

The very first test of a scientific character in dietetic writings is the same as in other branches of learning—it is HARMONY. If there be a criterion of truth, it is that on which all practical application of theory rests, without which no railroad bridge is built and no Eiffel-tower, at least none that will stand, and which in succinct language is given the formula, "agreement with itself." Where doctors disagree, it is a sure sign that something is amiss, and that in medicine it occurs so often, shows how we are backward in scientific achievements, and how necessary it is, unless progress is not wanted at all, to quit the uncourteous habit to never be incivil. Strife only can bring out the truth, this noble aim of all of us who are prompted by honest purpose, and stagnancy waits upon the leniency of soliloquising abstinence from contest, the egoistic delight of individual comfort. There is in the medical profession a tolerance of contradictions which is simply intolerable to any one who took his literary habits in among severer aspirations. Dr. Beard, in his admirable leader in the March issue of the *Dietetic Gazette*, "The Causes and Prevention of Infant Mortality," says of the irritants in the intestinal canal: "To lock them up in the bowels by the administration of opiates is the worst possible practice," and with him this is not an abrupt assertion, but a conclusive deduction from sensible physiological considerations and warranted pathological facts. But in the session of December 12 of the New York Academy of Medicine, a member could speak of the great value of opium in the diseases of children, without causing among his brethren—who assume a commanding title to the highest standing in the profession—homeric laughter, and without the two-fold opprobrium being hurled at him, of an unscientific and frivolous physician. In "Remarks on Eczema and Its Dietetic Treatment," in the same number of the *Dietetic Gazette*, it is cited of Dr. Schweninger the judgment, "good general nutrition is not so requisite as a rational regimen adapted to the individual." But Dr. Waugh, writing in the same number of the *Dietetic Gazette* on "Diet of Childhood," says: "If the stomach refuses to do its duty, what then? Are we to submit to this rebellious spirit and relieve it of the duty? By no means. The organ must be trained to do its work obediently." Dr. Chapin, of the N. Y. Academy of Medicine, is reported to say: "Under a careful application of dietetic rules, I do not think that irrigation would be needed so often." But Dr. Waugh teaches only one rule—that is, in eating, to be never ruled by the stomach.

How can with the public a confidence in medical opinions at all be established if the drift of the sayings runs so right straight against each other? Must not, in every thinking man, be awakened the suspicion that the medical profession are not a thinking class of men?

Moreover, glaring contradictions like the aforementioned are not only found from one author to the other, but in one and the same author—in one and the same article. Dr. Waugh, in his aforementioned paper on "Diet of Children," says that cold and salt sponging and exercise in the open air render the children less susceptible of cold, if "judiciously" employed. But he takes a particular delight in presenting to the reader, as illustration of such a judiciously employed cold bath, the case of a three-year-old sitting under a hydrant, and running about after thorough drenching in her wet clothes.

The mind-curers are justly scoffed at by the regular M.D. But what difference from a mind-cure is in the reasoning of Professor Waugh, that, because "the highest type of a healthy stomach is one which is omnivorous, digesting any food given it, and where all foods are eaten with relish," a child need only be forced to eat all and

everything, and speedily it will get such a high type of a healthy stomach?

Professor Waugh tells us in his article, "if a thing be true, it is always true; if a principle be correct, it is universally applicable." But on the same page on which he says this, he speaks of the rule, that if an article of food be relished it will easily be digested, as one "to which the exceptions are numerous." He states these exceptions explicitly only with reference to "after years." But his restriction of exceptions in childhood to cases where an "undue quantity" was eaten, implicitly gives the lie to his own principles.

Professor Waugh approves the practice in the gymnasium of the present to treat a weak point in the muscular system scientifically, and this means, if anything, to treat medically an organ, sparing its weakness, before letting it do the work which in active life it is called upon to perform. But defective digestive power he pretends to cure by simply ignoring its deficiency, putting it unscientifically to the work common life calls for.

The *Dietetic Gazette*, in an editorial, suggests the erection of a chair of gastronomy in a leading medical college. But what is the good of that, if no stomach has a claim to a clean bill of health—if it does not relish without discrimination whatever is put into it?

I do not doubt but there is much common sense in all that Professor Waugh meant to say about dietetics. And what I mean to say is only, that a professor should be scientific enough to say what he means. IV.

"WITH BRAINS, SIR."

In a pleasant paper on "John Brown of Edinbro,'" Professor Masson mentions the fondness with which the genial doctor delighted to chew the cud of a felicitous phrase—a species of mental illumination that thoroughly digests and wholly assimilates the very spirit of apt words. In the caption of this paper Dr. Brown's readers will recognize one of his favorite refrains—*with brains, sir.*

Goethe has said that no man ever understands the language used by another as precisely and completely as did the user, and there is a large truth in the observation; but who doubts that John Brown had projected himself into the very heart of Opie's uttermost meaning? If any, then let him read again, and again, and yet again—even to saturation—John Brown's *brainy* essay, and if he can become interpenetrated by the spirit of it, then will he know, perhaps, the divinest day of his life. If, till then, he has only fed his soul on the husks that the swine did eat, he may, haply, find that he has been born again—the vista of a higher life shining resplendently before him.

Having in mind the unpleasant possibility that not every reader of this paper has read Dr. Brown's essay, I will cite just the first ten-and-one-half lines of it to show its clear tone, and also, as Dr. B. would say, its "relevancy" to the topic in hand.

"Pray, Mr. Opie, may I ask what you mix your paints with?" said a brisk dilettante student to the great painter. "With *Brains*, sir," was the gruff reply—and the right one. It did not give much of what we call information; it did not

expound the principles and rules of the art, but if the inquirer had the commodity referred to, it would awaken him; it would set him a-going, a-thinking, and a-painting to good purpose. *If he had not the where-withal, as was likely enough, the less he had to do with colors and their mixture the better.*" [These italics are not Dr. Brown's. I put them in because all of us are so apt to overlook good advice, and in that not only the mixing of colors should be done "with Brains, sir."]

If this taste of John Brown's quality shall have tickled the palate of some healthy young reader whose taste has not been depraved by the sophisticated fleshpots of *Vanity Fair*, then is it, indeed, a duty to give him yet another taste, in the hope of creating a hunger for so wholesome an author.

"What the painter wants, in addition to, and as the complement of, the other elements, is *genius and sense*; what the doctor needs to crown and give worth and safety to his accomplishments, is *sense and genius*. * * *

"And what is genius? and what is sense? Genius is a peculiar native aptitude, or tendency, to any one calling or pursuit over all others. A man may have a genius for governing, for killing, or for curing the greatest number of men, and in the best possible manner; a man may have a genius for the fiddle, or his mission may be for the tight-rope, or the Jew's harp; or it may be a natural turn for seeking, and finding and teaching the truth, and for doing the greatest possible good to mankind; or it may be a turn *equally natural* for seeking, and finding, and teaching a lie, and doing the *maximum* of mischief."

No more of Dr. John Brown—who, *being dead, yet speaketh*,—and if no divine hunger drives you to his pages, *you need waste no money on salt!*

I now purpose to defend the following thesis against any and all oppugners: and may the Spirit of Truth defend the right!

"What the 'editor' needs to crown and give worth and safety to his accomplishments, is sense and genius."

When the gauntlet is taken up I will be found in the lists.

* * * * *

In my workshop are *The Encyclopedia of Pure Materia Medica*, *A General Symptom Register of the Homœopathic Materia Medica*, and *A Handbook of Materia Medica and Homœopathic Therapeutics*. I refer to them daily, and "with Brains, sir"—just a decent *modicum*, enough to exclude me from a Home for the Feeble-Minded. I like the *Encyclopedia* for the same charm that for forty years has held me to the *Waverly Novels*—a certain admixture of fact and fiction.

But for such a mixture, I must admit that the *Encyclopedja* "takes the cake." How? That is exactly what "I rise to explain."

A recent tough case put me to my trumps, and I went at our *Materia Medica* as with a fine tooth-comb. I struck ore in *Plantago*, and had my reward. Now, while I never could tell a student "how to study *Materia Medica*," I can tell a doctor when to study a remedy: just when you have made a ten-strike with it. THEN its murky symptom-list is resplendent. Try it.

During such a study of *Plantago*, in the *Encyclopedia*, Vol. VII., p. 557, I found this: "A pin on anything behind the ear causes great irritation; obliged to remove it (twenty-sixth day)." Symptom 126.

Thought I, remove what? the "pin?" the "anything?" or the "ear?" What does it mean? asked I, again and again. Again and again a wicked (Californian) echo said, "Damfino!"

"If I do say it, as shouldn't," I am a bit of a literary detective, and for my first clew I turned to the *Symptom Register*, p. 345. There I found "EAR.—BEHIND," on the top of the page, and four lines below:

"Irritation, from pin or anything, Plan."

Here was a transmogrification: "a pin on anything behind the ear" had become "a pin or anything behind the ear." Says I to myself, says I, evidently, the text of the *Symptom Register* is an improvement on that of the *Encyclopedia*; and as the errors of the *Encyclopedia* have been "corrected" in the *Handbook*, thither I went. At p. 890 I found: "EARS.—Irritation from a pin or anything behind it."

A theological inquiry—"Who in — puts 'a pin behind the ear?'—incontinently phrased itself. *Qui sine peccatum est, etc.*!"

Last of all, I sought that symptom at its source, the *Hahnemannian Monthly*, Vol. III., p. 341, line twenty: "A pin or anything behind the ear causes great irritation; obliged to remove it."

What a faithful editor, thought I; he has followed the *Hahnemannian* to an *i* and its dot!

Of course, that profane Californian echo was incontinently hushed into silence; it being plainly evident that the person was not "obliged to remove" the *ear*; no, it was only "a pin or anything behind the ear" that caused the irritation.

Now, when I modestly claimed to have inside my own *pia mater* "a decent modicum" of brains, it may have occurred to those who know me that there is more "cheek" than gray-matter. However, my "modicum" was puzzled by that "pin" behind the ear, and was it "SENSE," or was it "GENIUS" that at once inspired an emendation—"a hairpin" behind the ear! (Something inside me said "It is GENIUS!" and I was happy.) Just then I turned to page 332 in the same volume of the *Hahnemannian*. Then leapt from my lips (I couldn't help it) a word that begins with a big *D* and ends with "*nation!*" I wept.

The person who put a hairpin behind the ear

was—*Alfred Heath*, a respectable, clear-headed English homœopathic pharmacist!! HIM my "genius" had imagined putting "a hairpin behind his ear!!!" at once I was "a sadder and a wiser man." Yes, if my knees had only bent the other way I should have given my father's oldest son a wholesome *a posteriori* argument.

In the divine calm that always comes when one righteously humiliates the Self, I saw, as "in clear dream and solemn vision," how far, how very far, "sense" transcends "genius;" and having gotten a healthy contempt for my "genius," I turned to this soul-vexing *pin* problem with (I hope) my *modicum* of "sense."

Hah! standing visibly before me was a "respectable, clear-headed English homœopathic pharmacist" with "a PEN behind his ear!" The mystery was solved, but the strain on certain of my sphincters was something fearful. (B. Gelsemium. $\frac{1}{2}$, gtt x; Spiritus Frumenti F $\frac{1}{2}$ ij. Take at once. N. B. No water: as further dilution will make the "dynamic force" of the Gelsemium too powerful. Treatment strictly "homœopathic" and decidedly *jucunde*. Try it.)

* * * * *

It was "a smooth, round stone from the brook" that smote Goliath before the Philistine host; it is the slip of a compositor's finger, putting an *i* for an *e*, that has shown a smaller host how fractional a *modicum* of "sense and genius" is needful to "edit" an *Encyclopedia*, a *Symptom Register*, and a *Handbook FOR THEM*.

Buffon mentions the experiments of Le Vail-lant upon certain turtles; he opened their skulls, removed their brains, filled their cranial cavities with cotton, and released them, to observe the consequences. *The turtles went on performing the various turtle functions just as if nothing had happened!*

Does any one know whether any of Le Vail-lant's turtles "got away" and took to "editing" for a livelihood? Buffon does not mention such a catastrophe, but it is painfully possible and pitifully probable.

S. A. JONES.

Ann Arbor, April 5, 1890.

ERRATA.

In my communication, "American Homœopathic Editors," your proof-reader makes me only half as stupid as I really am, by printing "*dummkopf*" with only one *m*. please give me all that is mine by nature and by law!

On page 25 you give the number of the *Annals* cited by me as "liv"—a breech presentation for which I am not responsible. I wrote "LIV." If your readers will give that number of the *Annals* a perusal it will be to their benefit.

S. A. JONES.

If, in my little note on *snakes*—as published in the April number of the *TIMES*—your compositor had set up (or your proof-reader had corrected) *rectum*, in place of *victim*, the thing would have had a point and a consistency with the context, which it lacks at present.

H. R. STILES.

THE ART OF MASSAGE.

BY THOMAS CECIL, B. SC., NEW YORK CITY.
Author of the Art of Massage. Masseur en Chef de Son Altesse Maharajah Putialah, India.

SHORT HISTORY OF MASSAGE.

Part I.

Massage has been practiced from the earliest times, and is probably as old as mankind.

With the Greeks and Romans, a form of massage was the common accompaniment of all medical treatment, and was used as a luxury, as a means of hastening tedious convalescence, and to render the limbs supple and enduring. Herodius, a teacher of Hippocrates, in the fifth century B. C., first proposed massage as a cure for disease. He was the superior officer of a massage establishment at Athens, and by compelling his patients to undergo various exercises, and to have their bodies "massered," is said to have lengthened their lives.

The earliest definite information regarding massage comes from Hippocrates, who said: "The physician must be experienced in many things, but assuredly also in massering, for things that have the same name have not always the same effect, for massering can bind a joint that is too loose and loosing a joint that is too rigid." The works of Plato abound in reference to the use of friction, and numberless passages might be cited from the Holy Bible and from "the ancients" describing the exercises of the massage establishments, and the manner in which children were led by degrees to execute the most difficult evolutions.

To France belongs the credit of giving to modern medical science a system of massage; and yet in spite of many able lectures by Prof. Charcot, and various discussions at the Academy of Science and other learned societies, it remains a sort of secret practice, almost wholly in the hands of certain medical men; the object of these articles is to make the art known to all physicians taking the MEDICAL TIMES as the best means of reaching them.

DEFINITION OF THE TERM.

The term massage is used by the French, and has been adopted by the English-speaking people of the world, to denote various manipulations which I shall describe to you as we proceed, whereby *inactivity* is made *active* and *apathy*, and indifference is made excitable, powerful and sensitive in other words, morbid inertia is transformed by massage into vital, active and potential energy.

INFLUENCE OF MASSAGE ON EXHAUSTION.

It is a common practice, in India and other eastern countries even at the present day, to *masser* the limbs of a tired traveller, after which the feeling of weariness disappears, and a sense of comfort and repose pervades the whole system. I notice this fact to show that an exhausted nervous system can, by external influences, without any help from the patient, be brought by gentle stimulation into a state of renewed energy and that gentle repose and sleep may be produced. A wearied nerve, or set of nerves or plexus of nerves, produces the same condition in every part of the body to which these nerves are distributed; and, as the nerves and their centres are the prime agents in the generation and conduction of force by which every movement of the body is called into action, performed, regulated and governed, we can easily comprehend what the result must be when the nerve centres become unstrung.

I will now show you the use of my massage instruments, which I have caused to be made in order to do away with the many objectional features of hand massage, and to save the patients the trouble of taking off their clothing. These have, in the hands of physicians whom I have taught, male

and female nurses, proved of sufficient value to warrant their presentation to you.



FIG. 1.

Fig. 1. represents a *percuteur* which is used on large groups of muscles as the neck, back and extremities. They are made of three sizes and are adapted for use in muscular-rheumatism, in cold hands and feet of females, will promote the general development where the circulation is weak and languid, will produce a normal temperature in the parts; but you must exercise considerable experience in the use of it—you will think of each patient as a "law unto himself," be it child, woman, or man, this will make you think of "dosage," which is quite as necessary in the art of massage as in *materia medica*.

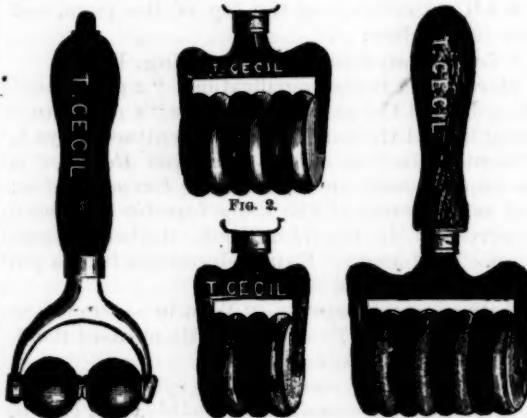


FIG. 2.

FIG. 2.

FIG. 2.

Fig. 2 which are a set of *roulettes* made of from one to eight little wheels. Those marked one and two respectively are spherical, and are well adapted to cases of *infantile paralysis* and are used with success on the spine and extremities. By means of these instruments a softer and more pleasing, equable pressure can be obtained than is possible with the hand or finger-tip, they also fit the interstitia better. You will take the same care in the use of these roulettes as in the use of the percuteur, always bear in mind the quantity and the muscles which you are operating on, so as to give your patient the dose indicated for his case; these instruments will increase the blood in the parts and the other fluids of the body. After about fourteen days you will see the muscle is increased in size, this may be made evident by measuring the limb before operating and then again in a week. The cases in which the use of these instruments are indicated are congestion in general, contraction of muscles, anaemia, etc. The reader will also perceive, from what I have said, that when used with proper care and applied to the body generally, they will aid materially in the general recovery of health and strength when no particular part is diseased but "general emaciation" is the condition.

Fig. 3 represents the *Batoir Elastique*, an instrument of soft rubber, of about eighteen inches in length, which is used in making percussions on the fleshy portions of the body, for the purpose of stimulating the muscles through

the circulation. The patient may use these instruments after instructions from his physician. You can make inactivity active, produce a rise in temperature in the parts, and relieve dull and wearing muscular pain—pains which are particularly experienced by women at the change of life, when the circulation is interfered with.



FIG. 3.



FIG. 4.

In suitable cases of hysteria and hypochondriasis and allied conditions you proceed gently and regularly, moving from above downwards, inwards, little or no pressure being exerted. It is claimed for this method that it neither fatigues the physician nor the patient. There are numerous methods of practising massage on the abdomen with the Batoir Elastique and the hand, these movements, combined in various ways, are practised a number of times in frequent succession. There are forms of vibration—very useful for constipation—but these it is not possible to describe in detail, in fact, it is almost impossible to teach the art of massage by written or verbal description. It is very much as if one were trying to make a *violin* player by describing how it is done without having recourse to the instrument. Massage is undoubtedly difficult to learn, but it can be acquired by dint of constant practice, and after a time becomes almost a second nature. There are several little points of detail to be thought of. The massage should be "dry," *sec* or *sèche*, that is, without the use of oil or liniments or ointments of any kind. But little experience soon serves to show which method yields the best results; the only exception to this rule is when the patient suffers from some form of specific disease, when the operator should use an antiseptic preparation of a solution of mercury and glycerine, as follows:

B Hydr. bichlor.....	3 i.
Glycerine.....	3 iv.
M.	

This will give a strength of 1-4 gr. to the minim, so that, using this as a standard corresponding to about 1-2000

(approx.) per pint add thirty-two minims of the glycerine solution to a pint of water, and this in like manner can be diluted to any extent. Carbolic acid or oil of cloves and lanoline may be used with advantage as a basis for ointment. I have used it mixed with bichloride and water, and it is undoubtedly superior to vaseline and other fats. I prefer dry *massering*. I am of opinion that it is unwise to employ lubricants of any kind. Dry *massering* is to be preferred for many reasons; first, you get a better contraction of the muscle and consequently a greater flow of the circulatory fluids; second, electrical currents are more readily developed in the tissues, greater elevation of temperature in the parts, you do not annoy your patient, there is not the slightest fear of causing abrasion of the skin in dry *massering* if the operator knows his work. I do not deny that the inunctions are of value in suitable cases, but that is another matter and has nothing to do with massage.

Fig. 4 represents broom-corn batoir of about fourteen inches in length, is used in cases of neurasthenia in women, in hystero-epilepsy, as mentioned by Charcot, where the patients are stupid and dazed, in short, the class of patients to whom this treatment is peculiarly applicable, are those persons who tell you that their nervous exhaustion is so great that everything tires them. Women who are thin and pale; they can not even read, sew, or walk, and by-and-by the sofa or the bed is their only comfort. In such complications this form of massage has been especially indicated and the most successful form of treatment.

TRANSLATIONS, GLEANINGS, ETC.

ON SOME PRACTICAL POINTS IN THE USE OF ANTACID REMEDIES IN DYSPEPSIA AND GRAVEL.

BY SIR WILLIAM ROBERTS, M. D., F. R. S.*

* * * There are, perhaps, in the whole range of therapeutics no simpler problems presented to us than those which have reference to the palliative treatment of acid dyspepsia, and the chemical prophylaxis of uric acid gravel. An excess of acid in the stomach is almost as easily neutralized as if it were contained in a bottle in the laboratory. And hyperacidity of the urine is scarcely less under our control, provided we employ a larger dose of the neutralizing agent. But although the objects in view are so simple, and the means of attaining them so well known, there are a number of practical points in carrying out the indicated lines of treatment, which are neither simple nor well known; and it is to some of these points that I propose to call your attention. For our present purpose, alkalizing or antacid agents may be classed into those which are designed to take effect in the stomach, or gastric antacids, and those which are designed to take effect in the kidneys, or renal antacids. The gastric antacids in common use consist of the alkaline and earthy carbonates and lime-water. Renal antacids include, in addition to these, the acetates and citrates of potash and soda, which are changed in the primae viae into carbonates of these bases.

Gastric antacids are employed in two distinct classes of cases—namely, in acid dyspepsia, and, secondly, in a variety of conditions characterized by great irritation of the stomach, often with vomiting, which we seek to allay by the administration of milk mixed with lime-water.

Antacids for Acid Dyspepsia.—You are well aware that sufferers from acid dyspepsia are in the habit of relieving their pains by the use of antacids. I have elsewhere pointed out that the most advantageous mode of administering antacids in these cases is in the guise of the lozenge. A lozenge, properly used, should be deliberately sucked, and not

* From an address delivered August 14, 1889, at the Annual Meeting of the British Medical Association.

roughly chewed and swallowed. The process of sucking induces a plentiful flow of alkaline saliva, and the presence in the stomach of this bland demulcent secretion is soothing to the angry mucous membrane. The compilers of the "British Pharmacopeia" have provided us with two, and only two, antacid lozenges—namely, the troch. sod. bicarb. and the troch. bismuthi. The former contains five grains of bicarbonate of soda in each lozenge. It is an effective antacid, but it is not a favorable example of pharmaceutical art. It has a peculiarly nasty, soapy taste, which makes the sucking of it a penance; and this, I presume, is the reason why it has not become popular with dyspeptics. The bismuth lozenge is in every way a better article. It owes its antacid properties to $3\frac{1}{2}$ grains of chalk and $2\frac{1}{2}$ grains of carbonate of magnesia. These quantities are, in saturating power, equal to ten grains of bicarbonate of soda. This is a full antacid dose, and the chalk and magnesia are practically tasteless, and this is a distinct advantage in regard to the active ingredients of a lozenge. The subnitrate of bismuth, to which this lozenge owes its name, has no antacid properties, and is probably inert. It imparts, however, a slight metallic taste, and communicates to the breath a somewhat disagreeable taint; so that its presence in the lozenge may, I think, be regarded rather as a tribute to the decaying art of polypharmacy than as a really useful addition. The bismuth lozenge has won its way into favor with dyspeptics by sheer merit, and inquiries which I have caused to be made among druggists and lozenge-makers show that the sale of this lozenge is largely increasing all over the country. A bismuth lozenge without the bismuth would be a nearly perfect antacid lozenge, and I would venture to suggest that some such lozenge should be introduced at the next revision of the "British Pharmacopeia."

Besides these officinal articles, there are largely sold in the shops a variety of lozenges and tablets for the use of dyspeptics. None that I have examined fulfill the conditions of a perfect antacid lozenge. The compressed tablets of carbonate of soda and the soda-mint tablets, although effective as antacids, are so unpalatable that they can not be properly sucked without disgust; and, indeed, those who use them generally, swallow them whole in haste, and thus miss the concurrent flow of saliva, which is distinctly helpful to dyspeptics. Some of the antacid lozenges sold in the shops are flavored with pungent spices to conceal the taste of the soda. All such adjuncts are obviously a mistake. Pungent spices have a strong tendency to provoke acidity in the stomach; and, moreover, any pronounced flavor is objectionable in an article which is used frequently. The alkaline salts of the vichy springs have been made into very agreeable lozenges, which are sold in this country in sealed boxes. They owe their antacid properties chiefly to carbonate of soda, but partly, also, to carbonate of potash and to the carbonates of lime and magnesia. They contain besides a small quantity of sodium chloride, which pleasantly sharpens their flavor. These lozenges have a comparatively feeble saturating power, but owing to their full sapid qualities, they provoke an abundant flow of alkaline saliva, and this renders them effective for the relief of gastric acidity. Were it not for their costliness, I believe these vichy lozenges would soon get into favor with dyspeptics.

As to the comparative merits of the several antacids employed in acid dyspepsia, there is, perhaps, on the whole not much to choose. Certain differences may, however, be noted. The alkaline bicarbonates have a nauseous taste, and if taken in excess they leave an alkaline residuum in the stomach. This is at least abnormal, and perhaps embarrassing, in an organ which requires the presence of an acid to perform its functions. The earthy carbonates, on the other hand, are tasteless, and, owing to their insolubility, they can not, when taken in excess, cause the neutral line to be overpassed. Perhaps the

most advantageous course would be to vary and change the antacid from time to time.

The question may now be put—is there any harm in the practice of habitually using antacids for the relief of acid dyspepsia? Do dyspeptics purchase present ease at the cost of some future detriment? My attention has been directed to this point for some years. I have, naturally, regarded a practice so artificial with considerable misgivings. But the more extended my experience has become, the more I have been satisfied that, with due precautions, the practice is harmless, and I know of no valid evidence from any other quarter to justify a contrary conclusion. My own experience has been largely gained from the use of the bismuth lozenges, which I have largely prescribed for a considerable length of time. I have, however, invariably enjoined the following strict rules in regard to their use: They were not to be used at or near meal time; not sooner than three-quarters of an hour or an hour after breakfast, nor sooner than an hour or an hour and a half after dinner. They were not to be used regularly and systematically, but only as the occasion arose; that is to say, when gastric pain was distinctly present, and was producing more discomfort than a man could be reasonably expected to bear who had the easy means of relief ready to his hands. Lastly, the use of the lozenges was to be discontinued if their employment did not cut short the pain. This last injunction leads up to the remark that an antacid dose is sometimes a useful means of diagnosis in cases of gastralgia. It is often impossible to decide from a patient's statements what may be the real nature of the pains complained of. In such a case, if an effective antacid dose fail to give relief, it is sure evidence that the pains are not due to gastric acidity.

Lime Water with Milk.—Lime water is used as an antacid in a very important and serious class of cases. It is a very general practice, as you know, when the stomach is intolerant of food, to administer milk with lime water—and often with the happiest results. But in many instances the symptoms are not allayed and the milk is vomited up in hard, sour curds. Failure in these cases is often solely due to the feeble antacid property of the lime water. The saturating power of lime water is really very low. Quicklime dissolves in water only to the extent of about half a grain to the fluid ounce, and this is only equivalent in saturating power to one grain of chalk and to a grain and a half of bicarbonate of soda. I have repeatedly observed in cases of feeding with milk and lime water, that failure was simply due to the feebleness of the antacid charge, and that when a solution of 5 to 10 grains per ounce of bicarbonate of soda was substituted for lime water as an admixture with milk, a favorable result, was at once obtained and the vomiting of hard curds arrested.

A useful notion of the relative antacid potency of the several articles in common use as gastric antacids, as sold in the shops, may be obtained from an inspection of the following table. Ten grains of bicarbonate of soda are taken as a standard antacid dose; and the quantities given of the other articles correspond in saturating value to this standard dose. The results were obtained by direct alkali metrical determinations, and are here shown in round numbers:

TABLE OF ANTACID EQUIVALENTS.			
10 grains sod. bicarb.	— 12 grains pot. bicarb.		
" "	— 6 " creta precip.		
" "	— 6 " carb. magnesia.		
" "	— 3 " light calcined magnesia.		
" "	— 6 fluid ounces lime water.		
" "	— 2 fluid drachms liq. potassae.		
" "	— 1 bismuth lozenge B. P.		
" "	— $2\frac{1}{2}$ Wyeth's soda-mint tablets.		
" "	— 5 Vichy lozenges.		

The use of alkalinizing agents for the prevention of uric acid gravel stands on quite as rational a basis as the use of

antacids for the relief of acid dyspepsia. It is chemically impossible for uric acid to be deposited in the free state from an alkaline urine; and as we have the means of harmlessly alkalinizing the urine at will, we have in our hands, theoretically at least, the absolute power of preventing uric acid gravel. There are, however, a good many practical difficulties in the way. The disposition to uric acid gravel has a certain persistence. It may last intermittently for weeks, months, and even years, and it would obviously be too great a strain on the treatment which is purely preventive to require that a patient should take antacid remedies in sufficient doses, and at sufficiently frequent intervals, to maintain the urine continuously alkaline for so long a period; nor is this necessary. A study of the normal oscillations of the urine at different periods of the day and night leads to the inference that the liability to uric acid gravel only assumes a morbid intensity during a limited portion of the twenty-four hours. The precipitation of uric acid in the kidneys can only take place when there is a concurrence of several favoring conditions. The flow of urine must be very slow, the secretion must be poor in saline constituents, it must be acid or even hyper-acid in reaction, and it must be fairly rich in uric acid. Now these several conditions only coincide at one period of the twenty-four hours, namely, during the hours of sleep. The time of sleep is a time of fasting, and therefore a time of hyperacidity of the urine; a time of bodily immobility and recumbency, and therefore a time when the renal stream approaches nearest to absolute stagnation. On the other hand, during the day and the waking hours, the recurrence of the meals keeps the urine rich in saline ingredients, and at a low degree of acidity, or even renders it for a while actually alkaline; the renal stream is comparatively full and rapid, and its descent from the kidneys is favored by the force of gravity. During these hours, therefore, the risk of uric acid precipitation is reduced to a minimum, even in persons who show a distinct tendency that way; for, as I have repeatedly had occasion to observe, the urine of calculous subjects exhibits exactly the same cyclical diurnal variations as that of healthy persons, though not always to so pronounced a degree.

It follows from these considerations that if we safeguard the night the day may be generally left to take care of itself. This theoretical deduction is fully in accordance with experience in the treatment of uric acid gravel. In the milder cases a single full dose of the alkalinizing agent taken at bed-time suffices to prevent the recurrence of the colicky pains and the discharge of uric acid concretions. For this purpose the citrates and acetates seem to be preferable to the bicarbonates. Their effect, I have reason to believe, is more protracted and covers a longer period of time than that of the bicarbonates. The citrate of potash is, on the whole, the best preparation to employ; it has very little taste, and it sits comfortably on the stomach. The dose for an adult should not be less than forty to sixty grains, dissolved in three or four ounces of water. In severer cases a single dose will be insufficient, and the early morning urine will still exhibit a morbid disposition to precipitate uric acid. In such cases a second dose should be taken about the middle period of the hours of sleep. This is less difficult to manage with the subjects of gravel than with healthy persons. There is commonly in calculous subjects a certain restlessness, and a certain irritability of the urinary organs, which leads to an increased frequency of micturition, and such persons rarely pass the night without a call to empty the bladder. Advantage should, therefore, be taken of this break in the continuity of sleep to take the second antacid dose. In this way the entire night and early morning may be effectually guarded.

Cases of uric acid gravel, however, are not always to be got rid of on these easy terms. Now and then instances are met with in which the perversion is so great that the urine is disposed to deposit almost all the twenty-four hours

round, and in which the normal alkaline tide, after meals, seems to be altogether abrogated. Under these circumstances additional doses of the alkaloid are required to afford the requisite protection. But, so far as I have seen, these extreme conditions only last a short time—a few days at most—and there is then a return to a less urgent state of things. It is indeed a marked character of uric acid gravel that it oscillates in intensity—it comes and goes in paroxysms—reminding one of the waviness of gouty phenomena. For this reason it is desirable to frequently note the state of the urine, and to ascertain its greater or less proneness to deposit uric acid, so that the administration of the antacid may be adjusted to the actual needs of the patient. There is no great difficulty about this. If a freshly voided specimen of the urine of fasting—say the urine of the early morning, or the urine secreted just before dinner—be set aside in a bottle in a warm place, so as to prevent the separation of the amorphous urates, the imminence of precipitation can be easily observed. If precipitation be morbidly imminent crystals of uric acid will appear—perhaps at once, perhaps in an hour or in a couple of hours. If precipitation be not morbidly imminent crystals will not appear for several hours—perhaps not for two or three days. It is possible in this way to gauge pretty accurately the intensity of the morbid tendency, and to regulate thereby the amount and frequency of the antacid dose, or to decide on its discontinuance.

The essential thing in the prophylactic treatment of uric acid gravel is to guard the urine from precipitating within the precincts of the kidney. And we shall practically have attained our object if we succeed, not in altogether preventing precipitation, but in postponing it until the urine has quitted the kidneys. A postponement for a short time—even half an hour—may make all the difference between a precipitation which is fraught with pain and peril, and a precipitation which is practically harmless. Now, the protective effect of the antacid extends in this respect a good deal beyond the point at which the urine is rendered actually alkaline. For, although all acid urines of medium density precipitate uric acid sooner or later, the time of the occurrence of that precipitation is immensely influenced by the degree of acidity of the urine. Other things being equal, the more acid the urine the earlier is the precipitation, and the less acid the urine the longer is the precipitation postponed. An antacid effect, therefore, which is too feeble to render the urine actually alkaline may be quite sufficient to depress its acidity to such a degree as shall postpone the time of precipitation until the urine has escaped from the kidneys, and even from the bladder.

There are several important matters in connection with the preventive of uric acid gravel which I am unable to touch upon, such as the regulation of the time and quality of the meals and the general mode of life, the use of other salines besides those which tend to diminish the acidity of the urine, the relations of uric acid to oxalate of lime, and so forth. To expand the subject in these directions would lead me too far. I could not pursue it without entering on some very intricate questions of urinary chemistry, the elucidation of which would require more time than I have now at my disposal, and some of which, moreover, are not yet ripe for profitable discussion. The conditions which determine the occurrence of urinary gravel are still imperfectly understood, and several of the problems connected therewith still await scientific study. The subject is one of great interest, both in regard to its therapeutical issues and its physiological bearings, and I know of none more likely to yield valuable results to a skilled and earnest inquirer.

Dangers of Carbolic Acid.—The following letter of Dr. Thomas Billroth, of Vienna, has been published: I have lately seen four cases, in which fingers which had suffered

a most insignificant injury became gangrenous through the uncalled-for application of carbolic acid. Carbolic acid is now much less used in surgery than formerly; we have only gradually become acquainted with its dangers. The acid may not only cause inflammation and gangrene, but also blood poisoning, and so may even prove fatal. It is useful only in the hands of a skillful surgeon, and ought never to be used without his advice. The best lotion for recent injuries is the ordinary lead lotion, which can be bought at any chemists. The best antidote in carbolic acid poisoning is soap, which should be taken immediately and repeatedly until all symptoms of poisoning have disappeared.

Invitation for an International Medical and Scientific Exhibition.—In connection with the Tenth International Medical Congress to be held in Berlin, between the Fourth and Tenth of August, there is to be an International Medical and Scientific Exhibition. The exhibits will be of an exclusively scientific nature, as follows:

New or improved scientific instruments and apparatuses for biological and strictly medical purposes, inclusive of apparatuses for photography and spectral analysis as far as applicable to medicine.

New objects and preparations in pharmacological chemistry and pharmacy.

New foods.

New or improved instruments subservient to any of the departments of medicine, including electrotherapy.

New plans and models for hospitals, convalescent homes, and disinfecting and bathing institutions and apparatuses.

New arrangements for nursing, including transportation, baths, etc.

New apparatuses in hygiene.

Any legally qualified physician can be enrolled as a member of the congress on the payment of five dollars. The object of the congress is an exclusively scientific one.

Address Dr. O. Tassar, Carlstrasse No. 19, Berlin, N. W., Germany.

RETROSPECTIVE THERAPEUTICS.

BY ALFRED K. HILLS.

Hoang-Nan.—Sir Sherston Baker writes to the *British Med. Journal*, March 30, 1889, that the director of the Pharmacie Centrale de France, 7, Rue de Jouy, Paris, has made the following statements concerning a Chinese plant called hoang-nan, the wonderful properties of which can not be too widely known. He says: "In reply to your letter, we beg to say that hoang-nan, a very dangerous product, is a plant indigenous to Tonquin; that it has been brought to Europe by the missionaries, and that, reduced to powder, it is highly recommended as a remedy for hydrophobia, leprosy, and certain diseases of the skin. The powder is given in doses varying from 15 centigrammes to 2.50 grammes, the variation being due to the fact that the bark is not always free from suberous matter, which is inert. We keep hoang-nan powder, which we sell at 100 francs the kilogramme (2.2955 lbs. avoirdupois). The medicine is prepared as follows: The mixture is first reduced to a powder, then moistened with vinegar, and formed into pills of little more than one centimetre diameter (inch 0.39371). When a person has been bitten by a rabid or poisonous animal, a dose of three to four grammes should be administered with a quarter of a glass of weak vinegar. The natural effects of hoang-nan taken by a healthy person are: fatigue, general indisposition, vertigo, tingling of the hands and feet, involuntary movements of the jaws, etc. The absence of these symptoms is a certain sign of the presence of a poison neutralizing the effects of the remedy. In such cases the treatment must be continued, and the

dose increased every day until the poison is entirely destroyed—that is to say, until the above described symptoms appear. When, as sometimes happens, the virus has not entered the system, two or at most three grammes of the remedy suffice to produce the symptoms described. If the medicine acts too violently, the evil effects may be counteracted by administering an infusion of licorice-root. The medicine is said to be infallible if taken before the acute stage of hydrophobia, and rarely to fail even when the disease has assumed a violent rabid form. But action must then be energetic. A very strong dose must be at once administered, and increased until the patient begins to foam at the mouth, and experience the symptoms already detailed. The hoang-nan is also used as a cure for snake-bites. The dose is stronger in proportion to the poisonous character of the bite.

"For the treatment of leprosy hoang-nan is prepared in the same manner as for use in cases of hydrophobia, with this difference, however, that not only, as in the latter case, the red dust, but also the substratum which it covers, and which adheres to the ligneous portion of the bark, can be employed. Pills may be formed by moistening the substance with vinegar, to which a little gluton has been added to effect cohesion. The pills are administered with vinegar. Taken with any form of alcohol they are deadly. During the treatment, and for some time afterwards, there must be total abstinence from spirituous liquor; beef, and in general all heating food, should for the time be avoided.

"The directions for the use of the pills are as follows: Begin with half a pill in the morning and half a pill at night; on the following day give one pill in the morning and one in the evening, and so on, daily increasing the dose by one pill until a maximum of five or six pills per dose is attained. The medicine may then be discontinued for about ten days. The morning and evening doses are then recommenced as on the first occasion, an effort being made to reach a rather higher maximum than before; but it is not prudent to continue these stronger doses for more than seven or eight days in succession, especially if the patient be not very robust. When the leprous sores cicatrize and leave only a small red spot, about ten hoang-nan pills should be made into a poultice and applied to the spot, and renewed every day for three days.

"Although as a cure for leprosy, hoang-nan may be less important in our climate, yet its remedial powers in cases of cancerous and ulcerous affections, etc., should commend it to the attention of European doctors."

If the virtues of the Chinese plant be such that it is a reliable cure for hydrophobia, for snake-bites, for leprosy, and for cancerous and ulcerous affections, or even for one alone of the scourges, it will be received as an angel of mercy by suffering humanity; but before receiving it at its full value, it is most desirable that it should run the gauntlet of a strict medical examination.

Sulphur.—Sir Alfred Garrod (*Lancet*) gives the following summary of results derived from the administration of doses of sulphur not exceeding five grains each day, and continued for weeks, months, and in some cases years: (1) A lozenge, named the compound sulphur lozenge, containing five grains of sulphur and one of cream of tartar, was usually prescribed, as being very convenient and by no means unpleasant in taste; and it was found that patients could be readily induced to persevere in using them for an almost indefinite time. (2) The physiological effect of these minute doses of sulphur are observed upon the alimentary canal and the organs connected with it; also on the pulmonary mucous membrane and the skin. (3) Sulphur is not an element foreign to the system, as it is contained in the most important proximate principles of the blood and flesh, and likewise of the bile and saliva. (4) Sulphur given in the manner above described is of great value in morbid states of the alimentary canal and liver, as in cases of

hepatic sluggishness and in piles and hemorrhoidal hemorrhage; besides which the continued use of the lozenges is often quite effectual in obviating habitual constipation without producing the unpleasant action often pertaining to ordinary aperient medicine. This beneficial effect on the bowels has doubtless been the chief cause of the lozenge having become so much liked, so continuously persevered in, and so extensively used. (5) Sulphur in small doses is sometimes useful in the affections of the pulmonary mucous membranes. (6) Sulphur has long had a reputation, and doubtless is of much value in many diseases of the skin and appendages. (7) Some arthritic diseases, especially chronic forms of rheumatoid arthritis and gout, and also many cases of muscular rheumatism, are much benefited by the continuous use of small doses of sulphur.

In conclusion it may be mentioned that the use of the compound sulphur lozenge, since first employed (not five years ago), has spread most widely; and I have been informed that one maker of medicinal lozenges has, during the last six months, sent out three hundred weight, which is at the rate of about two hundred and twenty thousand lozenges a year. Without wishing to lay much stress on the value of the treatment I have been speaking of in the present communication, or of being thought to consider sulphur applicable as a therapeutic agent in more than a limited number of diseases, still of one fact I feel confident, that there are many hundreds at the present time who are indebted for much health and great comfort to the use of this simple and harmless remedy.

Ice in the Night Sweats of Phthisis.—Rosenbach (*Pr. Med. Wochsch.*) recommends for arresting the night sweats, which so enfeeble the phthisical, applications over the abdomen of a bladder half full of ice, and to let it remain several hours. The patients tolerate it very well, even when they present an evening elevation of temperature. This means succeeds where atropine has failed, as well as powdered salicylate of soda sprinkled over the entire body.

Transmissibility of Syphilis.—As published in his magnificent *Atlas of Venereal and Skin Diseases*, Prof. Morrow's conclusions in reference to the hereditary transmissions of syphilis are :

1. A syphilitic man may beget a syphilitic child, the mother remaining exempt from all visible signs of the disease; the transmissive power of the father is, however, comparatively restricted.

2. A syphilitic woman may bring forth a syphilitic child, the father being perfectly healthy; the transmissive power of the mother is much more potent and pronounced, and of longer duration, than that of the father. When both parents are syphilitic, or the mother alone, and the disease recently acquired, the infection of the fetus is almost inevitable; the more recent the syphilis, the greater the probability of infection, and the graver the manifestation in the offspring.

4. While hereditary transmission is more certain when the parental syphilis is in full activity of manifestation, it may also be effected during a period of latency when no active symptoms are present.

5. Both parents may be healthy at the time of procreation, and the mother may contract syphilis during her pregnancy, and infect her child in utero. Contamination of the fetus during pregnancy is not probable if the maternal infection takes place after the seventh month of pregnancy.

Prolongation of Lives of Consumptives by Tobacco Smoke.—(D. E. Schneller, M.D.; *Amer. Med. Journal*).—In the January number of *The Microscope*, page 24, I find an article written by Dr. Vincenzo Tassina. He gives his

experience on the examination of tobacco and tuberculous bacilli, to which I refer.

Through my observation of tobacco smokers I arrive at the following statements: Of 104 cases which I treated, I found 60 per cent. were smokers, and that they almost all arrived at the age of 51 to 53 years. In the remainder, I find 14 acute cases, and 29 of chronic type; the dying age between 20 and 40 years.

In connection with my microscope, I tested the sputa in cases of tobacco smokers. I found the bacilli in very small patches, more closely aggregated, rounder form and shrivelled. In the remainder, not tobacco smokers, I find the tubercular bacillus in oblong form, greater quantities, scattered all over the field, and in a healthy state.

A specimen of tubercular sputa found in non-smokers, I treated with tobacco and let remain fourteen days, and I had the opportunity to see that the plates were exactly the plates that I stated before in smokers.

Since that time I put the following questions to my male patients: 1st. Do you smoke? If so, how much each day? How long have you smoked? And since when have you quit smoking?

I keep the answers in my memory, and go on with further examination. If my patient suffers from tuberculosis, and has arrived at the age of from forty to fifty years, and he loses his appetite for smoking, I am sure he has arrived at the stage of solidification of the lung, and the disease will run its course rapidly. But if he still smokes, and upon examination I find in the infra-clavicular region tubercular cavities, the disease will progress slowly.

If your patient suffers from any disease whatever he loses his appetite for smoking. If he asks: "Doctor, do you think the smoke hurts me any? I would like to smoke to-day." Then you have your sign of convalescence, and soon your patient will be all right.

Styrene as an Antiseptic.—Dr. H. H. A. Beach (*Boston Medical and Surgical Journal*) has employed this substance, which is a derivative of Balsam of Peru, with excellent results as an antiseptic during a period of eleven years. It possesses three important advantages, being efficient, non-poisonous and agreeable in odor. It has been given to dogs in doses of a fluid ounce with no unfavorable results. As a deodorizer of foul and offensive wounds or ulcers, particularly those associated with malignant disease or necrosed bone, it is as prompt, efficient and lasting as either of the poisonous or offensive smelling applications in common use. In ulcerating cancerous growths it may be conveniently sprayed upon the parts too sensitive to bear the douching necessary for clearing the surface of decomposing discharges. The following formula has been found useful in such cases, with the addition of morphine when required :

B Styrene.....	3 i.
Glycerine.....	3 i.
Diluted water.....	3 i.

To raw surfaces styrene is somewhat irritating: but in the form of an emulsion with olive oil, water or liquid vaseline, it may be applied freely to open wounds. In the pleural and peritoneal cavities where the greatest opportunity is offered a poisonous antiseptic for absorption, styrene in solution may be freely used, without danger, 1-200, 1-100, or 1-50 with water. One part to twelve, with water, is sufficiently strong to completely disinfect a foul or ulcerating surface.

Free Iodine in a Mineral Water.—Wanklyn has found in the water of the Woodhall Spa, England, free iodine sufficient in amount to impart to the water a brown color of considerable depth of tint. This is the first instance in which an appreciable quantity of free iodine has been found in any natural water.

MISCELLANY.

—Recent observations have shown that the immoderate and long-continued use of tobacco, may of itself bring about organic changes in the muscular substance of the heart.

—Pennsylvania courts have decided that the ownership of the prescription and its copies is invested in the patient.

—Antiseptic wool is being preferred to absorbent cotton, on account of its greater absorption and less liability to mat.

—Ten years ago Mrs. Ada Martin, living in a small town in Ritchie County, Va., punctured one of her limbs so severely as to cause permanent paralysis of it and deprive her of the power of speech. During the period of her affliction she has been making crazy quilts, and endeavoring to obtain patches from prominent men. Presidents Hayes, Garfield, and Arthur sent her patches, and a day or two ago she received a patch from President Cleveland, with his compliments autographically expressed. Her pleasure at the event was so great that she jumped up suddenly, and in doing so knocked a revolver to the floor, causing it to be discharged. The ball entered her paralyzed limb, and the shock removed the paralysis and restored her speech. Ever since the occurrence she has had the use of her tongue, which for ten years has been silenced. The physicians say she will have the use of her limb as soon as the bullet wound is healed.

—The English medical journals report the fourth case of the successful excision of a tumor in the brain.

—Fothergill says: A medical man has no right to alarm a person by announcing Bright's disease, merely on the discovery of albumen in his urine. It is as unjustifiable as to inform a man his house is afire merely because his chimney is ablaze. Before saying anything to the patient, the urine should be carefully searched for tube-casts, and if they are discovered, then the announcement is justifiable, but not until.

—Dr. Emmet is reported by Dr. Munford, in the *Indiana Medical Journal*, as saying that in five years, every man who has spayed a woman will apologize for having done so.

—Man's original dentition included six incisors in either jaw; two from each jaw have gradually disappeared; this loss is due to the contraction of the anterior part of the palate; this process of contraction will probably go on and result in the loss of two further incisors; the conical shape of many of the supernumerary teeth indicates a reversion to the primitive type of tooth.

—The Jews in London are estimated at 46,000, and of these, last year, every third person was actually in receipt of poor-relief, every second Jew belonged to the regular pauper class, and every second Jewish funeral which took place in the metropolitan area was a pauper funeral. Of the total deaths registered by the metropolitan synagogues, 81 per cent. were those of children under ten. The proportion among the residents of the country at large is only 43.5. This fact will show how much truth there is in the allegation so frequently made, and so generally credited, that the death-rate of the Jews is lower than that of the people among whom they live.

—Dr. W. R. Gowers and Mr. Arthur E. Baker, report in the *British Medical Journal*, December 11, 1886, the first case on record of abscess of the brain from tympanic suppuration, correctly diagnosed, localized, and successfully operated upon.

—James Payn, the novelist, is editor of the *Cornhill Magazine*, London. Next door to his office a medical journal has its sanctum. One day Mr. Payn's door was cau-

tiously opened, and a pale-faced, long-haired individual entered. "I have brought a little thing about Sarcoma and Carcinoma," said the visitor. "Very sorry, sir," said Payn, politely, "but we have all the poetry we want." "This isn't poetry," exclaimed the visitor, "it is an essay on two varieties of tumor." "Oh, I beg your pardon," said Payn, "I thought they were a pair of Italian lovers." The long-haired man was a well known medical professor, who had entered the wrong office.

—Among the legacies of the late Hon. Daniel B. St. John, of Newburgh, N. Y., was one of ten thousand dollars to the Post-Graduate Medical School and Hospital of this city.

—The New York Pasteur Institute is located at 178 West 10th St. It was organized Feb. 18th. Up to March 31st thirty people applied for relief, of which nine were treated and are now in good health.

—The *London Lancet* has appropriated \$1,500 yearly for the relief of the families of medical men who by sickness or death have been reduced to actual want. Money may be loaned or given, as the circumstances of the case may suggest. It is to be administered by eminent members of the profession without expense to the fund.

—Dr. D. Hayes Agnew says that he never saw a case of nasal catarrh among the females belonging to the Society of Friends, Dunkards, or Mennonites. He thinks the bonnets of these people protect them from the disease.

—“The difference between a good physician and a bad one is certainly very great; but the difference between a good physician and no physician at all, in many cases, is very little”—a truth worthy of all acceptance.

—A Report on the Inquiry into the Connection of Disease with Habits of Intemperance, prepared by Dr. Isambard Owen, Secretary to the Investigation Committee of the British Medical Association, gives some startling statistics for temperance people (and the insurance companies). Particulars have been obtained by the committee of 4,234 cases of deceased lives, aged 25 and upward, in which the habits of the person in regard to alcohol were reported in five classes—total abstainers, habitually temperate, careless drinkers, free drinkers, and decidedly intemperate. The ages of death in each class show an average as follows: Total abstainers, 51.23 years; habitually temperate, 62.13; careless drinkers, 59.67; free drinkers, 57.59; decidedly intemperate, 52.03. This makes the lowest average duration of life that of the teetotaler and the highest that of the moderate drinker, his average being nearly eleven years longer. The habitual drunkard averages about a year longer than the total abstainer. Another table prepared by the committee, from which all deaths under thirty were excluded, showed the following durations of life: Total abstainers, 57.31; habitually temperate, 66.48; careless drinkers, 61.52; free drinkers, 58.87; decidedly intemperate, 58.42. Omitting lives under 40 years, the average of death was: Total abstainers, 62.74 years; habitually temperate, 67.71; careless drinkers, 66.45; free drinkers, 61.98; decidedly intemperate, 57.47.

—Dr. Keith, of Edinburgh, is very strongly committed to the electrolytic method of apostoli in the treatment of uterine fibroids. He has tested it in one hundred cases. "So strongly do I now feel on this subject," he says, "that I would consider myself guilty of a criminal act were I to advise my patient to run the risk of her life, before having given a fair trial to this treatment." He has just published a table of twenty-six cases of hysterectomy, and these, he says, are probably the last he will ever do. He expresses the deliberate opinion that the operation is one which does more harm than good.

—A solution of half an ounce of boric acid to eight ounces of alcohol, applied freely to acne several times a day will produce excellent results.